

ADRIENNE DECKER
Associate Professor
Department of Engineering Education

WORK ADDRESS

Department of Engineering Education
140 Capen Hall
University at Buffalo
Buffalo, New York 14260
(716) 645-8963
adrienne@buffalo.edu

<https://adriennedecker.net/>

RESEARCH AREAS

Computer Science Education (undergraduate and graduate); Introductory programming education; Assessment; Grading, and grading practices (with a focus on equitable grading); Neurodivergent learners in computer science

EDUCATION

Ph.D., Computer Science and Engineering, University at Buffalo (SUNY) June 2007
How Students Measure Up: An Assessment Instrument for Introductory Computer Science
Advisor: William J. Rapaport

M.S., Computer Science and Engineering, University at Buffalo (SUNY) June 2001
Master's Project: ASPAS: A Solution for Providing Application Services
Advisor: Bina Ramamurthy

B.S., Computer Science, Summa Cum Laude, University at Buffalo (SUNY) Feb 2001

PROFESSIONAL EXPERIENCE

Associate Professor, Department of Engineering Education 4/2022 – Present
University at Buffalo, Buffalo, NY

- Tenure Date: 9/1/2022

ELATES at Drexel Fellow 8/2024 – 3/2025
Drexel University, Philadelphia, PA

- ELATES at Drexel is a national leadership development program designed to promote senior women faculty, and faculty allies of all genders, in leadership for academic engineering, computer science, and other STEM fields into effective institutional leadership roles within their schools and universities with a demonstrated commitment to increasing the representation of women in STEM.

MAC Academic Leadership Development Program (ALDP) Fellow 10/2023 – 9/2024
University at Buffalo, Buffalo, NY

- The mission of the MAC ALDP is to identify, develop, prepare, and advance faculty as academic leaders in the Mid-American Conference universities.

Independent Contractor, The College Board 10/2022 – 5/2023
New York, NY

- AP Computer Science A Curriculum Framework rewrite and assessment working group.

Assistant Professor, Department of Engineering Education 1/2019 – 4/2022
University at Buffalo, Buffalo, NY

Exam Grading AP Computer Science A, Educational Testing Services 6/2011 – 6/2022
Princeton, NJ

Exam Leader: 2020, 2021, 2022 exam readings

Question Leader: 2014, 2015, 2016, 2017, 2018 exam readings

Table Leader: 2019 exam reading

Reader: 2011, 2012, 2013 exam readings

- Grading annual AP Computer Science A exam and leadership positions held during the grading period; verification of rubrics; training of readers for reading.

Development Committee AP Computer Science A, The College Board 7/2015-6/2021
New York, NY

Higher Ed co-chair: 7/2018 – 6/2021

Member: 7/2015 – 6/2018

- Creation of questions, review and approval of the content for the annual AP Computer Science A exam

Standards Setting Panelist AP Computer Science A, The College Board 5/2020 – 6/2020
New York, NY

- Panel that determined new cut scores for 2020 exam due to exam changes

Articulation Group: AP Computer Science A, The College Board 11/2015 – 12/2017
New York, NY

- Worked on articulation and framework curriculum documents for the AP Computer Science A Course and Exam Description (CED) published 2019

Associate Professor, School of Interactive Games and Media 7/2017 – 1/2019
Rochester Institute of Technology, Rochester, NY

- Date of Tenure: 7/1/2017

Eugene M. Fram Faculty Fellow in Applied Critical Thinking, Office of the Provost
Rochester Institute of Technology, Rochester, NY 7/2017 – 1/2019

- Assist and support the chair of Applied Critical Thinking in university-level initiatives to promote critical thinking

Faculty Affiliate, RIT MAGIC Center 9/2013 – 1/2019
Rochester Institute of Technology, Rochester, NY

Assistant Professor, School of Interactive Games and Media 9/2011 – 6/2017
Rochester Institute of Technology, Rochester, NY

Question Writer AP Computer Science Principles, Educational Testing Services 9/2011-6/2017
Princeton, NJ

Teaching Assistant Professor, Department of Computer Science and Engineering 8/2007-8/2011
University at Buffalo, Buffalo, NY

Lecturer, Department of Computer Science and Engineering 8/2002 – 7/2007
University at Buffalo, Buffalo, NY

Instructor, Department of Computer Science and Engineering 5/2001 – 7/2002
University at Buffalo, Buffalo, NY

Instructor, Department of Mathematics/Physics/ Computer & Information Sciences
Niagara County Community College, Sanborn, NY 8/2001 – 12/2001

HONORS AND AWARDS

Best Paper, ACM SIGCSE Technical Symposium on Computer Science Education 2024
Transforming Grading Practices in the Computing Education Community

Senior Member, Association of Computing Machinery (ACM) 2016
As one of ACM's prestigious Advanced Member Grades, ACM Senior Member status recognizes the top 25% of ACM Professional Members for their demonstrated excellence in the computing field.

Wall of Fame Inductee, John F. Kennedy High School (Cheektowaga, NY) March 2013

Milton Plesur Award for Excellence in Teaching, University at Buffalo May 2007

Best Paper, Twenty-first Annual CCSC Eastern Conference October 2005
When Objects Collide: Abstractions over Common Physics Problems for Capstone Projects in CS1

Best Paper, Nineteenth Annual CCSC Eastern Conference October 2003
A Tale of Two Paradigms

GRANTS AND CONTRACTS

Summary of Research Funding

Funding category	Total	Candidate's share
External sources - UB	\$3,739,089	\$1,579,833
External sources (transfer to UB)	\$1,381,928	\$998,221
Internal sources – UB	\$8,000	\$8,000
External sources - RIT	\$3,358,063	\$134,133
Internal sources - RIT	\$23,185	\$23,185
Total funded research	\$8,510,265	\$2,743,372

Current Funding

1. *Collaborative Research: Transforming Grading Practices in the Computing Education Community*, PI: Adrienne Decker, University at Buffalo, Co-PI: Stephen H. Edwards, Virginia Tech, Co-PI: Manuel A. Pérez Quiñones, University of North Carolina Charlotte 6/2023-5/2028, National Science Foundation, NSF IUSE ESL Level 3, \$1,999,979 (39% share - \$771,236)

2. *BPC-DP: Building Ecosystems of Belonging for Neurodiverse Computer Science Students*, PI: Sam Abramovich, University at Buffalo, Co-PI: Adrienne Decker, University at Buffalo, 10/2021-9/2024, National Science Foundation, \$293,110 (5% share - \$14,088)
3. *Collaborative Research: Expanding Subgoal Labels for Imperative Programming to Further Improve Student Learning Outcomes*, PI: Briana Morrison, University of Virginia, co-PI: Adrienne Decker, University at Buffalo, 8/2021-7/2024, National Science Foundation, NSF IUSE, \$500,000 (40% share - \$198,205)
4. *Advancing the Computational Thinking of Undergraduate Students in Intermediate Computer Science Courses*, PI: Adrienne Decker, University at Buffalo, 6/2021-5/2025, National Science Foundation, NSF IUSE Grant No. 2044179, \$300,000 (100% share)

Pending Funding

1. *Collaborative Research: Critical Technology to Enable Innovative and Equitable Grading Practices*, PI: Bob Edmison, Virginia Tech, Co-PI: Adrienne Decker, University at Buffalo, 8/2024-7/2027, National Science Foundation, NSF RITEL, \$900,000 (20% share - \$182,104)

Completed Funding

1. *Developing a 15-Year Agenda for Computing Education Research*, PI: Adrienne Decker, University at Buffalo, Co-PI: Mark Weiss, Florida International University 9/2020-8/2023, National Science Foundation, NSF IUSE Grant No. 2039833, \$312,075 (75% share - \$232,697)
Funded Students (Graduates): Sean Mackay (1/2021-5/2021)
2. Collaborative Research: Establishing and Propagating a Model for Evaluating the Long Term Impact of Pre-College Computing Activities, PI: Adrienne Decker, Co-PI: Monica McGill, Knox College, 9/2016-8/2022, National Science Foundation, NSF IUSE Phase 2 Grant Nos: 1625005, 1625335, 1757402, 1933671, \$1,115,137 (86% share - \$965,085)
Funded Postdoctoral Scholars: Brian M. McSkimming (7/2020-6/2021)
Funded Students (Graduates): Nathaniel Blair (9/2017-5/2018)
(Undergraduates): Ma'kiah Holliday (5/2017-8/2017), Sean Mackay (5/2019-8/2020)
3. Teaching Responsible Computing. PI: Atri Rudra, UB, co-PIs: Varun Chandola, Adrienne Decker, Matt Hertz, Andrew Hughes, Lindsay Hunter, Kenny Joseph, Dalia Muller, Maria Rodriguez, Kris Schindler, Melanie Sage, Sama Waham, Mark Shepard, Jenn Winikus, 3/2021-12/2021, Mozilla Foundation, \$54,000, (1% share - \$500)
4. Accelerated Learning Model for Increased Strategic and Tactical Decision Making Using Multi-player Games, PI: Guy Howard, Intelligenesi LLC, 6/2021-12/2021, Department of the Navy, Navy SBIR 21.1 - Topic N211-082, \$139,974, (15% share - \$21,107)
5. Collaborative Research: Developing and Assessing Subgoal Labels for Imperative Programming to Improve Student Learning Outcomes, PI: Briana Morrison, University of Nebraska Omaha, Co-PIs: Adrienne Decker, Lauren Margulieux, 8/2017-7/2021, National Science Foundation, NSF IUSE Grant Nos. 1712231, 171205, 1927906, \$299,927 (11% share - \$33,136)
Additional External Collaborators: Elizabeth Johnson, Xavier University (subcontract)
6. Forensic Models of Cyberspace Behavior, PI: Guy Howard, Intelligenesi LLC, 6/2019-12-2019, Department of the Navy, Navy STTR 2019.A - Topic N19A-T021, \$139,951 (30% share - \$42,000).
Funded Students (Undergraduates):
Joey Dubill (6/2019-12/2019), Jordan Chau (6/2019-9/2019), Kevin Cheung (6/2019-9/2019), Kevin Lin (9/2019-12/2019), Md Hasan (9/2019-12/2019)

7. Forensic Models of Cyberspace Behavior, PI: Adrienne Decker, University at Buffalo, 9/2019-12-2019, University at Buffalo SBIA Matching Award, \$8,000 (100% share).
8. Using a Researcher-Practitioner Partnership Approach to Develop a Shared Evaluation and Research Agenda for Computer Science for All, PI: Alan Peterfreund, SageFox Consulting, co-PIs: Rebecca Zarch [SageFox Consulting], Leigh Ann DeLyser [CSNYC], 9/2017-12/2018, National Science Foundation, NSF ITEST Grant No: 1745199, \$1,414,165 (1% share - \$20,684)
9. Charting a Course Towards Full Professor, PI: Adrienne Decker, 6/2016-12/2017, AdvanceRIT Connect Grant, \$2325 (100% share)
10. Impacts of Underrepresentation in Games on Members of the Underrepresented Group, PI: Adrienne Decker, 1/2016-12/2016, RIT GCCIS Dean's Seed Funding, \$5860 (100% share)
Funded Students (Undergraduates): Ma'kiah Holliday (1/2016-12/2016), Ila Vaughan (1/2016-5/2016)
11. Transmedia Augmented Reality Game for Essential Transfer in Science (TARGETS), PI: Victoria VanVoorhis, Second Avenue Software, 10/2013-11/2013, DoEd SBIR Phase 1, \$150,000 (7% share - \$11,746)
12. Transmedia Augmented Reality Game for Essential Transfer in Science (TARGETS), PI: Victoria Van Voorhis, Second Avenue Software, 6/2013-11/2013, DoEd SBIR Phase 1, \$150,000 (7% share - \$11,703)
13. Martha Madison's Marvelous Machines, PI: Victoria Van Voorhis, Second Avenue Software, 8/2012-7/2014, NSF SBIR Phase 2, \$1,008,000 (7% share - \$70,000)
14. Creating a Pedagogic Environment for Introductory Game Design and Development Students, PI: Adrienne Decker, 1/2012-8/2012, RIT GCCIS Dean's Seed Funding, \$15,000 (100% share)
15. Preserving Virtual Worlds II: Methods for Evaluating and Preserving Significant Properties of Educational Games, PI: Jerome McDonough (University of Illinois Urbana-Champaign, 9/2011-12/2012, Insitute of Museum and Library Services, \$785,898 (2.5% share - \$20,000)

PUBLICATIONS AND TECHNICAL PRESENTATIONS

(**Bold** indicates lead/ corresponding author for publications, *denotes graduate student, +denotes undergraduate student)

Google Scholar: <https://scholar.google.com/citations?user=JjLxdewAAAAJ&hl=en>

ORCID: <https://orcid.org/0000-0002-0822-4813>

Web of Science: <https://www.webofscience.com/wos/author/record/AAD-9548-2020>

Books

1. Alphonse C. and Decker, A. (2015) *An Introduction to Object-Oriented Programming and Problem Solving*, Pearson Learning Solutions. New York, NY. ISBN-13 9781323230749
http://www.pearsoncustom.com/ny/ub_cse115/
2. Alphonse C. and Decker A. *Class Notes for CSE 115*, Self-published for use in course, 2006-2014.
3. **Decker A.** *Instructor's Manual with Solutions for Walter Savitch's Absolute Java 2nd Edition*, Addison-Wesley, Electronic Supplement, 2005.
4. **Decker A.** *Instructor's Manual with Solutions for Walter Savitch's Absolute Java*, Addison-Wesley, Electronic Supplement, 2004.

Book Chapters

1. Phelps, A., Egert, C. A., and Decker. A. (2019) "Splattershmup: A Game of Art & Motion" In K. Schrier (Ed.), *Learning, Education & Games Volume 3: 100 Games to Use in the Classroom & Beyond*. ETC Press.

2. **Decker, A.**, Phelps, A., and Egert, C. A. (2017) “Trial by a Many-Colored Flame: A Multi-Disciplinary, Community-Centric Approach to Digital Media and Computing Education” In Fee, S., Holland-Minkley, A. and Lombardi T. (Eds.), *New Directions for Computing Education: Embedding Computing Across Disciplines*. Springer.
3. McGill, M.M., Decker, A. and Settle, A. (2014) “A Framework for Addressing Gender Imbalance in the Game Industry through Outreach” In Prescott, J. and McGurren, J. (Eds.), *Gender Considerations and Influence in the Digital Media and Gaming Industry*. IGI Global.

Refereed Journal Articles

(**Bold** indicates lead/ corresponding author for publications, *denotes graduate student, +denotes undergraduate student)

Published

1. **Decker, A.**, Egert, C., Cascioli, E. (2020) “Cohorting Incoming Students in a CS1 Course: Experiences and Reflections from the First Year of Implementation”, *Journal of Computing Sciences in Colleges*, 35:8, 186-196, <https://dl.acm.org/doi/10.5555/3417639.3417656>.
2. Margulieux, L.E., Morrison, B.B., and Decker, A. (2020) “Reducing Withdrawal and Failure Rates in Introductory Programming with Subgoal Labeled Worked Examples”, *International Journal of STEM Education*, 7:19, 16 pages, <https://doi.org/10.1186/s40594-020-00222-7>. (cited by: 54)
3. Morrison, B. B., Margulieux, L. E. & Decker, A. (2020) “The curious case of loops”, *Computer Science Education*. 30, 28 pages, DOI: 10.1080/08993408.2019.1707544
4. **Decker, A.**, and McGill, M.M., (2019) “A Systematic Review Exploring the Differences in Reported Data for Pre-College Educational Activities for Computer Science, Engineering, and other STEM Discipline”, *Educational Sciences*. 9(2), 69; <https://doi.org/10.3390/educsci9020069>
5. Margulieux, L., Ayer Ketenci, T., and Decker, A. (2019) “Review of Measurements Used in Computing Education Research and Suggestions for Increasing Standardization”, *Computer Science Education*. 29:1, 49-78, DOI: 10.1080/08993408.2018.1562145. (acceptance rate: 16%, cited by: 64)
6. McGill, M.M., Decker, A., and Settle, A. (2016) “Undergraduate students’ perceptions of the impact of pre-college computing activities on choices of major”, *ACM Transactions on Computing Education*. 16:4, Article 15, 33 pages. <https://doi.org/10.1145/2920214> (Cited by: 42)
7. **Decker, A.** and Simkins, D. (2013) “You Have Died of Dysentery: A First Attempt at Navigating a Course in Educational Games”, *Journal of Interactive Humanities*, Volume 1, Issue 1, Article 1. (<http://scholarworks.rit.edu/jih/vol1/iss1/1>)
8. McGill, M.M., Settle, A. and Decker, A. (2013) “Demographics of Undergraduates Studying Games in the United States: A Comparison of Computer Science Students and the General Population”, *Computer Science Education*, 23:2, pp. 158-185. <http://dx.doi.org/10.1080/08993408.2013.769319>
9. **Decker, A.**, Haydanek, S.+ and Egert, C. (2005) “When Objects Collide: Abstractions over Common Physics Problems for Capstone Projects in CS1”, *Journal of Computing Sciences in Colleges*, 21(2), pp. 12-18. <https://dl.acm.org/doi/10.5555/1089053.1089056>
10. **Decker, A.** (2003) “A Tale of Two Paradigms”, *The Journal of Computing Sciences in Colleges*, 19(2), pp. 238-246. <https://dl.acm.org/doi/10.5555/948785.948820> (cited by: 24)

In Review

1. Bonnette, R., Abramovic, S., Decker, A., Fabiano, G. “The need for an “Intersectionality Variable”: Examining differences in challenging experiences of multiply marginalized neurodivergent students in STEM programs”, *International Journal of Educational Technology in Higher Education*.

Refereed Proceedings Articles (presenter name underlined, *graduate student, +undergraduate student)

Note on Conference Acceptance Rates:

Computer Science Conferences: Acceptance rates for ACM conferences range between 20-35% for papers. Papers in ACM proceedings are considered ***journal equivalent publications in the field***.

Engineering Education Conferences: The “Submit-to-Publish” acceptance rate for ASEE and FIE is around 50-70% i.e., of the initial N number of abstracts submitted, 50-70% are accepted as full papers after two rounds of review of full papers. The exact acceptance rate is not always published.

Under Review

1. Mackay, S.*, Eiselt, K., and **Decker, A.** “Two Sides of the Same Coin: Differing Approaches to Generative AI in Two Computer Science Classrooms”, *Frontiers in Education 2024* (under review).
2. Edwards, S., Pérez Quiñones, M., Decker, A., Edmison, B., Rorrer, A., and Shukla, A.* “Early Experiences with Specifications Grading in Intro CS Courses”, *Frontiers in Education 2024* (under review).
3. Mackay, S.*, McSkimming, B. M., and Decker, A. “Interview Iterations and Improvements for Identifying Intermediate Computer Science Threshold Concepts” *Frontiers in Education 2024* (under review).

Computer Science Conferences (i.e. journal equivalent)

1. **Decker, A.**, Edwards, S., McSkimming, B., Edmison, B., Rorrer, A. and Pérez Quiñones, M. (2024) “Transforming Grading Practices in the Computing Education Community”, *Proceedings of the 55th ACM Technical Symposium on Computer Science Education V. 1 (SIGCSE 2024)*, ACM, March 20-23, 2024. Portland, OR, USA, pp. 276-282. (acceptance rate: 32%) [**BEST PAPER** – Position and Curricula Initiatives]
2. **McGill, M.**, **Tise, J.**, and Decker, A. (2024) “Piloting a Diagnostic Tool to Measure AP CS Principles Teachers' Knowledge Against CSTA Teacher Standard 1”, *SIGCSE Technical Symposium of Computer Science Education 2024* (accepted – in press). *Proceedings of the 55th ACM Technical Symposium on Computer Science Education V. 1 (SIGCSE 2024)*, ACM, March 20-23, 2024. Portland, OR, USA, pp. 819-825. (acceptance rate: 32%)
3. **McGill, M.**, **Decker, A.** (2020) “Construction of a Taxonomy for Tools, Languages, and Environments across Computing Education”, *Proceedings of the fifteenth annual International Conference on International Computing Education Research (ICER '20)*, ACM, August, 2020. Dunedin, New Zealand, pp. 124-135. (acceptance rate: 23%)
4. **McGill, M.**, **Decker, A.** (2020) “Tools, Languages, and Environments Used in Primary and Secondary Computing Education”, *Proceedings of the 2020 ACM Conference on Innovation and Technology in Computer Science Education (ITiCSE '20)*, ACM, June 17-19, 2020. Trondheim, Norway, pp. 103-109. (acceptance rate: 28% - cited by: 28)
5. **McGill, M.**, **Decker, A.** (2020) “A Gap Analysis of Statistical Data Reporting in K-12 Computing Education Research: Recommendations for Improvement”, *Proceedings of the 51st SIGCSE Technical Symposium of Computer Science Education*, ACM, March 11-14, 2020. Portland, OR, USA, pp. 591-597. (acceptance rate: 31%)
6. **Upadhyaya, B.+**, McGill, M.M., Decker, A. (2020) “A Longitudinal Analysis of K-12 Computing Education Research in the United States: Implications and Recommendations for Change”, *Proceedings of the 51st SIGCSE Technical Symposium of Computer Science Education*, ACM, March 11-14, 2020. Portland, OR, USA, pp. 605-611. (acceptance rate: 31% - cited by: 30)
7. **Decker, A.**, Margulieux, L.E., Morrison, B.B. (2019) “Using the SOLO Taxonomy to Understand Subgoal Labels Effect on Problem Solving Processes in CS1”, *Proceedings of the fifteenth annual*

- International Conference on International Computing Education Research (ICER '19)*, ACM, August 12-14, 2019, Toronto, ONT, Canada, pp. 209-217. (acceptance rate: 20%)
8. **Margulieux, L.E.**, Morrison, B.B., Decker, A. (2019) “Design and Pilot Testing of Subgoal Labeled Worked Examples for Five Core Concepts in CS1”, *Proceedings of the 2019 ACM Conference on Innovation and Technology in Computer Science Education (ITiCSE '19)*. ACM, July 15-17, 2019, Aberdeen, Scotland, UK, 548-554. (acceptance rate: 27% - cited by: 28)
 9. **Decker, A., McGill, M.** (2019) “A Topical Review of Evaluation Instruments for Computing Education”, *Proceedings of the 50th SIGCSE Technical Symposium of Computer Science Education*, ACM, February 27-March 2, 2019, Minneapolis, MN, 558-564. (acceptance rate: 32% - cited by: 36)
 10. **McGill, M.**, Decker, A., **Haynie, K.**, and **McKlin, T.** (2019) “A Gap Analysis of Noncognitive Constructs in Evaluation Instruments Designed for Computing Education”, *Proceedings of the 50th SIGCSE Technical Symposium of Computer Science Education*, ACM, February 27-March 2, 2019, Minneapolis, MN, 706-712. (acceptance rate: 32% - cited by: 21)
 11. **McGill, M.**, Decker, A., and **Abbott, Z.**+ (2018) “Improving Research and Experience Reports of Pre-College Computing Activities: A Gap Analysis”, *Proceedings of the 49th SIGCSE Technical Symposium of Computer Science Education*, ACM, February 21-24, 2018, Baltimore, MD, pp. 964-969. (acceptance rate: 35% - cited by: 27)
 12. **Decker, A.**, and McGill, M. (2017) “Pre-College Computing Outreach Research: Towards Improving the Practice”, *Proceedings of the 48th SIGCSE Technical Symposium of Computer Science Education*, ACM, March 8-11, 2017, Seattle, WA, pp. 153-158. (acceptance rate: 30% - cited by: 30)
 13. **Morrison, B.B.**, Decker, A., and Margulieux, L.E. (2016) “Learning Loops: A Replication Study Illuminates Impact of HS Courses” *Proceedings of the twelfth annual International Conference on International Computing Education Research (ICER '16)*, ACM, September 9-11, 2016, Melbourne, Australia, pp. 221-230. (acceptance rate: 25% - cited by: 20)
 14. **Decker A.**, McGill, M.M., and **Settle, A.** (2016) “Towards a Common Framework for Evaluating Computing Outreach Activities”, *Proceedings of the 47th SIGCSE Technical Symposium of Computer Science Education*, ACM, March 2-5, 2016, Memphis, TN, pp. 627-632. (acceptance rate: 35% - cited by: 40)
 15. **McGill, M.M.**, **Decker, A.**, and **Settle, A.** (2015) “Does Outreach Impact Choices of Major for Underrepresented Undergraduate Students?” *Proceedings of the eleventh annual International Conference on International Computing Education Research (ICER '15)*, ACM, August 9-13, 2015, Omaha, NE, pp. 71-80. (acceptance rate: 26% - cited by: 31)
 16. **Decker A.** and **Lawley, E.L.** (2013) “Life’s a Game and the Game of Life: How Making a Game Out of It Can Change Student Behavior”, *Proceedings of the 44th SIGCSE Technical Symposium of Computer Science Education*, ACM, March 6-9, 2013, Denver, CO, pp. 233-237. (acceptance rate: 38% - cited by: 89)
 17. **Alphonse, C.**, **Caspersen M.** and **Decker A.** (2007) “Killer ‘Killer Examples’ for Design Patterns”, *Proceedings of the 38th SIGCSE Technical Symposium on Computer Science Education*, ACM, Covington, KY. pp. 228 – 232. (acceptance rate: 34%)
 18. **Decker A.**, **Egert C.** and **Ventura, P.** (2006) “Through the Looking Glass: Reflections on Using Undergraduate Teaching Assistants in CS1”, *Proceedings of the 37th SIGCSE Technical Symposium on Computer Science Education*, ACM, Houston, TX. pp. 46 - 50. (acceptance rate: 35% - cited by: 51)
 19. **Decker, A.** and **Ventura, P.** (2004) “We Claim this Class for Computer Science: A Non-Mathematician’s Discrete Structures Course”, *Proceedings of the SIGCSE Technical Symposium on Computer Science Education*, ACM, Norfolk, VA, pp. 442 – 446. (acceptance rate: 28%)

Other Conference and Workshop Papers

1. **Bodnar, C.**, Chavela Guerra, R., Decker, A., Matusovich, H., and Purzer, S. “Insights from a Multi-Institutional Virtual Engineering Education Graduate Program Showcase”, *Proceedings of 2024 ASEE Annual Conference & Exposition*, June 2024, (accepted – in press).
2. **Bonnette, R.**, Abramovich, S., Fabiano, G., Decker, A., Sullivan, V.+ and Alexandre, H.+ (2024) “Alignment and Misalignment: Critical Differences in the Way That Instructors and Students

- Perceive Support for Neurodiversity in Undergraduate Computer Science Education”, *6th Annual Neurodiversity at Work Research Conference*, May 30-31, 2024, College Park, MD, USA.
https://ndatworkresearch.org/papers/NWRC24_paper_23.pdf
3. McSkimming, B.M., Mackay, S.*, Decker A. (2023) “Identification of Threshold Concepts for Intermediate Computer Science Students”, *Proceedings of the 2023 Frontiers in Education Conference*, October 2023, College Station, TX, USA, pp. 1-5.
 4. Bonnette, R., Abramovich, S., Decker, A., and Fabiano, G. (2023) “Building Belonging for Multiply Marginalized Neurodivergent Students in STEM Higher Education”, *Proceedings of ISLS Annual Meeting 2023*, June 2023, Montreal, Quebec, Canada, pp. 870-873.
 5. Decker, A., and McGill, M. (2023) “Centering K-8 CS Teachers’ Experiences During a Day of Dialogue for Teachers and Researchers”, *Proceedings of 2023 ASEE Annual Conference & Exposition*, June 2023, Baltimore, MD, USA, 12 pages.
 6. Smith, J.M., McGill, M., Decker A. (2023) “An Examination of Empirical Evidence Produced by a Decade of K-12 Computer Science Education Research”, *Proceedings of the 2023 Frontiers in Education Conference*, October 2023, College Station, TX, USA, pp. 1-8.
 7. McSkimming, B.M., Decker A. (2021) “Investigating the usage of Likert-style items within Computer Science Education Research Instruments”, *Proceedings of the 2021 Frontiers in Education Conference*, October 2021, Lincoln, NE, USA, pp. 1-8.
 8. Xavier, J., McGill, M., Decker, A. (2020) “Designing and Developing a Resource Center for Primary and Secondary Computing Education Researchers”, *Proceedings of the 2020 Frontiers in Education Conference*, October, 2020, Uppsala, Sweden, pp. 1-9.
 9. Mackay, S.+ , Decker, A. (2020) “Updating our Understanding of the Impact of Pre-College Computing Experiences on University Students”, *Proceedings of the 2020 IEEE Frontiers in Education Conference*, October, 2020, Uppsala, Sweden, pp. 1-5.
 10. Maxim, B.R., Decker, A., Yackley, J.J.* (2019) “Student Engagement in Active Learning Software Engineering Courses”, *Proceedings of the 2019 Frontiers in Education Conference*, October 16-19, 2019, Cincinnati, OH, USA, 5 pages.
 11. Decker, A., Egert, C., and Phelps, A. (2018) “Learning to Create or Creating to Learn”, *Proceedings of Meaningful Play 2018*, October 11-13, 2018, East Lansing, MI. ETC Press
<https://doi.org/10.1184/R1/9995969.v1>
 12. Yackley, J.**Error! Bookmark not defined.**, Maxim, B., Brunvand, S., and Decker, A. (2018) “Active Learning and Gamification in Game Design Courses”, *Proceedings of Meaningful Play 2018*, October 11-13, 2018, East Lansing, MI. ETC Press <https://doi.org/10.1184/R1/9995969.v1>
 13. Decker, A., Schneider, J. and Margulieux, L. (2018) “How Engineering and Computing Students Demonstrate Critical Thinking During Required Co-op Work Experiences”, *Proceedings of the 2018 Frontiers in Education Conference*, October 3-6, 2018, San Jose, CA, 8 pages.
 14. McGill, M., and Decker, A. (2018) “Defining Requirements for a Repository to Meet the Needs of K-12 Computer Science Educators, Researchers, and Evaluators”, *Proceedings of the 2018 Frontiers in Education Conference*, October 3-6, 2018, San Jose, CA, 9 pages.
 15. Maxim, B., Decker, A., and Brunvand, S. (2017) “Use of Role-Play and Gamification in a Software Project Course”, *Proceedings of the 2017 Frontiers in Education Conference*, October 28-21, 2017, Indianapolis, IN, 5 pages. (cited by: 26)
 16. Decker, A., and Simkins, D. (2016) “Uncovering Difficulties in Learning for the Intermediate Programmer”, *Proceedings of the 2016 Frontiers in Education Conference*, October 12-15, 2016, Erie, PA, 9 pages.
 17. Simkins, D. and Decker, A. (2016) “Examining the Intermediate Programmers Understanding of the Learning Process”, *Proceedings of the 2016 Frontiers in Education Conference*, October 12-15, 2016, Erie, PA, 4 pages.
 18. Decker, A., and Simkins, D. (2016) “Leveraging Role Play to Explore Software and Game Development Process”, *Proceedings of the 2016 Frontiers in Education Conference*, October 12-15, 2016, Erie, PA, 5 pages.

19. **Decker, A.**, Egert, C.A., and Phelps, A. (2016) “Splat! er, Shmup? A Postmortem on a Capstone Production Experience”, *Proceedings of the 2016 Frontiers in Education Conference*, October 12-15, 2016, Erie, PA, 9 pages.
20. Smith, R.* and **Decker, A.** (2016) “Understanding the Impact of QPOC Representation in Video Games”, *Proceedings of Research in Equity and Sustained Participation in Engineering, Computing, and Technology (RESPECT)*, August 12-13, 2016, Atlanta, GA, 9 pages.
21. **Decker, A.**, Eiselt, K., and Voll, K. (2015) “Understanding and Improving the Culture of Hackathons: Think Global Hack Local”, *Proceedings of the 2015 Frontiers in Education Conference*, October 21-24, 2015, El Paso, TX, pp. 1138-1145. (cited by: 88)
22. **Decker, A.**, and Egert, C. (2015) “Is this thing on? Determining Comfort Level with Communication Skills in a Technical Discipline”, *Proceedings of the 2015 Frontiers in Education Conference*, October 21-24, 2015, El Paso, TX, pp. 2326-2334.
23. **Decker, A.**, Egert, C., and **Jacobs, S.** (2014) “Throwing Out the First Pitch”, *Proceedings of the 2014 Frontiers in Education Conference*, October 22-25, 2014, Madrid, Spain, pp. 202-209.
24. **Simkins, D.**, **Decker, A.**, Egert, C., Snyder, A., and VanVoorhis, V. (2014) “Martha Madison: Marvelous Machines: Exploring Simple Machines in an Open-Ended, Collaborative Sandbox” *Proceedings of the 2014 Frontiers in Education Conference*, October 22-25, 2014, Madrid, Spain, pp. 275-281.
25. McGill, M.M., **Settle, A.** and Decker, A. (2013) “Demographics of Undergraduate Students in Game Degree Programs in the United States and United Kingdom”, *Proceedings of the 14th Annual Conference on Information Technology Education (SIGITE 2013)*, ACM, October 10-12, 2013, Orlando, FL, pp. 43-50.
26. **Settle, A.**, McGill, M.M., and Decker, A. (2013) “Diversity in the Game Industry: Is Outreach the Solution?” *Proceedings of the 14th Annual Conference on Information Technology Education (SIGITE 2013)*, ACM, October 10-12, 2013, Orlando, FL, pp. 171-176.
27. **Decker, A.**, Egert, C., Phelps, A. and McDonough, J., (2012) “Technical Properties of Play: A Technical Analysis of Significant Properties for Video Game Preservation”, *Proceedings from the 2012 IEEE International Games Innovation Conference*, Rochester, NY, pp. 56-59.
28. **Simkins, D.**, Egert, C. and Decker, A. (2012) “Evaluating Martha Madison: Developing Analytical Tools for Gauging the Breadth of Learning Facilitated by STEM Games”, *Proceedings from the 2012 IEEE International Games Innovation Conference*, Rochester, NY, pp. 137-140.
29. Ventura, P., Egert, C. and **Decker A.** (2004) “Ancestor Worship in CS1: Reexamining the Introduction of Arrays”, *2004 OOPSLA Educator’s Symposium*, ACM, Vancouver, BC, pp. 68 - 72.

Edited Conference Proceedings

1. Decker, A., Eiselt, K., Payton, J., Barnes, T., and Thiruvathukal, G.K. (Eds.) (2016) *Proceedings of the 2016 Research on Equity and Sustained Participation in Engineering, Computing, and Technology (RESPECT)*. IEEE, New York, NY, USA.
2. Decker, A., Eiselt, K., Alphonse, C., and Tims, J. (Eds.) (2015) *Proceedings of the 46th ACM Technical Symposium on Computer Science Education*. ACM, New York, NY, USA.
3. Dougherty, J.D., Nagel, K., Decker, A. and Eiselt, K. (Eds.) (2014) *Proceedings of the 45th ACM Technical Symposium on Computer Science Education*. ACM, New York, NY, USA.

Other Publications

1. Cigas, J., Czajka, S., Decker, A., Martin, R.G., Coutts, R., Furman, C., McDonough, D., Milverton, A., Spaulding, E., Thurber, A. (2020) “AP Computer Science A Course and Exam Description” <https://apcentral.collegeboard.org/pdf/ap-computer-science-a-course-and-exam-description.pdf>.
2. **Decker, A.** “How Students Measure Up: An Assessment Instrument for Introductory Computer Science.” Doctoral Dissertation, UMI AAT 3261966, DAI-A 68(5) [Nov 2007], Buffalo, NY, June 2007. (cited by: 24)

Invited Talks

1. *Thinking about Computing Education's Future – Where should the field be headed? How do we get there?*, OSU Department of Engineering Education Seminar Series, The Ohio State University, September 28, 2023.
2. *Follow the Yellow Brick Road: A Reflection on Pathways in Computing Education Research*, Computing Education at Davis Seminar Series, UC Davis [virtual], May 7, 2021.
3. *Improving Performance in Introductory Programming Courses*, International Workshop on Computing Education (IWCE) Keynote, China [held virtually], August 22, 2020.
4. *Reflections on Assessment, Impact, and Contribution in Computing Education*, CSE Up Beat Presentation Series, University at Buffalo, Buffalo, New York, November 18, 2019.
5. *Creating Learning Creatively*, Colloquium, Baldwin Wallace University, Berea, Ohio, November 1, 2018.
6. *Creating Learning Creatively*, Colloquium, Kettering University, Flint, Michigan, October 10, 2018.
7. *Computing Students: How do we get them? How do we keep them?*, RIT's STEM Education Research Group's Interdisciplinary STEM Education Research Forum, Rochester, NY, April 24, 2018.
8. *Gaming Education*, RIT MAGIC Center's Professional Development Day at McQuaid Jesuit, Rochester, NY, April 23, 2018.
9. *Game Design and Development*, A teleconference presentation to Heywood Avenue School's Engineering Week, Orange, New Jersey, March 1, 2018.
10. *Students: How do we get them? How do we keep them?*, Colloquium, Mt. Saint Mary's University, Frederick, Maryland, February 20, 2018.
11. *What is your passion?*, Presentation, Winter Springs High School, Winter Springs, Florida, October 23, 2017.
12. *An Introduction to Computing*, A presentation to S. Bishop's 4th grade class, Alden Intermediate School, Alden, New York, April 18, 2017.
13. *What is your passion?*, Presentation, Meade High School, Fort Meade, Maryland, February 24, 2017.
14. *What is your passion?*, Presentation, Riverside Brookfield High School, Riverside, Illinois, January 16, 2017.
15. *So you think you know about the games industry*, Colloquium, Hiram College, Hiram, Ohio, November 8, 2016.
16. *Computing education crossroads (or six-degrees of separation)*, IGM Colloquium series, Rochester Institute of Technology, Rochester, New York, November 3, 2016.
17. *Computing Education Crossroads: Finding my passion where my journey started*, CSE Colloquium series, University at Buffalo, Buffalo, New York, October 27, 2016.
18. *What is your passion?*, Presentation, School for the Talented and Gifted, Dallas, Texas, September 13, 2016.
19. *What is your passion?*, Presentation, Weslaco High School, Weslaco, Texas, September 12, 2016.
20. *How Chance Meetings Change Your Life*, IGM Colloquium series, Rochester Institute of Technology, Rochester, New York, October 24, 2014.
21. *Teaching Java to Novices*, Guest Speaker, SUNY Fredonia First Annual High School Programming Competition, Fredonia, NY, December 19, 2000.

Refereed Presentations (all authors present, lead in bold, *graduate student, +undergraduate student)

These presentations are submitted for review and juried in a manner similar to conference papers. Acceptance rates vary by venue and are often not published.

1. **Decker, A.**, Weiss, M.A., Becker, B.A., Dougherty, J.P., Edwards, S.H., Goode, J., Ko, A.J., McGill, M.M., Morrison, B.B., Pérez-Quñones, M., Rankin, Y.A., Ross, M., Vahrenhold, J. Weintrop, D., and Yadav, A. 2022. *Piecing Together the Next 15 Years of Computing Education Research Workshop Report*. Special Session: presented at 53rd ACM Technical Symposium on Computer Science Education (SIGCSE 2022), March 2022. <https://doi.org/10.1145/3478432.3499037>

2. **Decker, A.**, McGill, M.M. *Understanding the Landscape of Diversity Efforts in K-12 Computing Using csedresearch.org*, Presentation presented at 2020 The Collaborative Network for Engineering and Computing Diversity (CoNECD), January 25, 2021 - online.
3. McGill, Decker, A., Torbey, R., Vivian, R. *An Introduction to Conducting Quantitative K-12 Computing Education Research*. Special Session presented at SIGCSE 2020, March 2020.
4. McGill, M.M., Decker, A. 2019. *csedresearch.org: Resources for Primary and Secondary Computer Science Education Research*. Tips, Techniques and Courseware Talk presented at ITiCSE 2019, July 16, 2019.
5. **Decker, A.**, McGill, M.M. *csedresearch.org: Resources for K-12 Computing Education*, NSF STEM for All Video Showcase Presentation, May 13-20, 2019.
<https://stemforall2019.videohall.com/presentations/1494>
6. Morrison, B.B., Decker, A., Margulieux, L.E. *Using Subgoal Labels to Improve Learning Outcomes in CS1*, NSF STEM for All Video Showcase Presentation, May 13-20, 2019.
<https://stemforall2019.videohall.com/presentations/1391>
7. **Decker, A.**, McGill, M.M., Ravitz, J., Snow, E., and Zarch, R. *Connecting Evaluation and Computing Education Research: Why is it so Important?* Special Session: presented at SIGCSE 2018, February 2018.
8. Cigas, J., **Decker, A.**, Furman, C., Gallagher, T. *How am I Going to Grade All These Assignments? Thinking About Rubrics in the Large*, Special Session: presented at SIGCSE 2018, February 2018.
9. **Decker, A.**, McGill, M.M., DeLyser, L., Quinn, B., Berry, M., Haynie, K., McKlin, T. *Repositories You Shouldn't Be Living Without*, Special Session: presented at SIGCSE 2018, February 2018.
10. **Decker, A.**, Trees, F. P., and Hoepfner, S. *Greenfoot: An Approach for Introducing Java*, Special Session: CS & IT 2011, July 12, 2011.

Refereed Workshop & Tutorial Organization and Leadership (all authors present, lead in bold, *graduate student, +undergraduate student)

These workshops and tutorials are submitted for review and juried in a manner similar to conference papers. Acceptance rates vary by venue and are often not published. When presented they are hands-on or teaching sessions rather than presentations.

1. **Decker, A.**, Morrison, B.B., and Bart, A.C. *Using Subgoal Labeling in Teaching CS1 (now in Python!)*. Workshop: SIGCSE 2023, March 15, 2023. <https://doi.org/10.1145/3545947.3569619>
2. **Decker, A.** and McGill, M.M. *Research+Practice Workshop at CSTA 2022*. Full day workshop held in conjunction with CSTA 2022, July 14, 2022. (<https://csedresearch.org/researchpractice-workshop-at-csta-2022/>)
3. **Decker, A.**, Morrison, B.B., and Bart, A.C. *Using Subgoal Labeling in Teaching CS1*. Workshop: SIGCSE 2022, March 4, 2022. <https://doi.org/10.1145/3478432.3499164>
4. **Decker, A.**, Morrison, B.B., and Margulieux, L.E. *Using Subgoal Labeling in Teaching Introductory Programming*. Tutorial: CCSC NE 2020, April 2020.
5. **Decker, A.** and McGill, M.M. *Student Learning: Creating, Refining, and Promoting Evaluation and Research Across Computing Education*. Full day workshop held in conjunction with ICER 2019, August 11, 2019. (<https://csedresearch.org/icer-workshop-2019/>)
6. Morrison, B., Margulieux, L., and Decker, A. *Using Subgoal Labeling in Teaching CS1*. Workshop: SIGCSE 2019, March 1, 2019.
7. Furman, C., Czajka, S., **Decker, A.**, and Xu, D. *College Board: Engaging students with algorithms*. Workshop: CSTA 2017, July 9, 2017.

8. Furman, C., Czajka, S., Decker, A., and Xu, D. *Engaging students with algorithms*. Workshop: SIGCSE 2017, March 10, 2017.
9. Blaheta, D., and Decker, A. *Rubricbing like a boss: writing and using rubrics for faster, fairer grading of student programs*, Workshop: SIGCSE 2016, March 4, 2016.
10. **Decker, A.**, and Trees, F. P. *Intro 3 Ways: An Introduction to Three Environments for Teaching Introductory Programming*, Workshop: CCSC E 2012, November 2-3, 2012.
11. **Decker, A.**, and Trees, F. P. *Greenfoot: Introducing Java with Games and Simulations*, Workshop: CCSC NE 2011, April 15-16, 2011.
12. **Decker, A.**, and Trees, F. P. *Greenfoot: Introducing Java with Games and Simulations*, Tutorial Session: CCSC NE 2011, April 15-16, 2011.
13. Kölling, M., Trees, F.P., Hoepfner, S., and Green, D. Teaching with Greenfoot - From development of material to delivery in the classroom, Workshop: SIGCSE 2011, Dallas, TX, March 12, 2011. [uncredited because I was on the conference committee, but did serve as a coordinator for this workshop]
14. Skrien, D., Decker, A., Caspersen, M., Börstler, J., and Alphonse, C. *Good Examples for Exposing Bad Practice: The Eighth "Killer Examples" Workshop*, Workshop: OOPSLA 2009, Orlando, Florida, October 25-29, 2009.
15. Caspersen, M., Börstler, J., Decker, A., and Alphonse, C. *Worked Examples for Sound Object-Oriented Pedagogy: A "Killer Examples" Workshop*, Workshop: OOPSLA 2008, Nashville, Tennessee, October 19-23, 2008.
16. Alphonse, C., Börstler, J., Caspersen, M., Decker, A., and Kölling, M. *Process in OO Pedagogy: A "Killer" Workshop*, Workshop: OOPSLA 2007, Montreal, Quebec, Canada, October 21-25, 2007.
17. Alphonse, C., Caspersen, M., Decker, A., and Trask, B. Fifth "Killer Examples" for Design Patterns Workshop, Workshop: OOPSLA 2006, Portland, OR, October 22-26, 2006.
18. Alphonse, C., Caspersen, M., Wong, S. and Decker, A. Fourth "Killer Examples" for Design Patterns and Objects First Workshop, Workshop: OOPSLA 2005, San Diego, CA, October 16-20, 2005.

Refereed Birds of a Feather Session Organization (all authors present, lead in bold, *graduate student, +undergraduate student)

These sessions are submitted for review and juried in a manner similar to conference papers. Acceptance rates vary by venue and are often not published. They are sessions that bring individuals of similar interests together to share ideas. Proposing a session implies leadership of the session.

1. Largent, D.L., Pérez Quiñones, M., Roberson, C., Wilson, L.F., Decker, A., Edwards, S.H. *BOF: Grading for Equity in Computer Science Courses*. Birds of a Feather Session: SIGCSE 2024, March 2024. <https://doi.org/10.1145/3626253.3635376>
2. Bonnette, R., Abramovich, S., and Decker, A. *Building Ecosystems of Belonging for Neurodiverse Students: A Discussion of Instructor Practices and Training Needs*. Birds of a Feather Session: SIGCSE 2022, March 2022. <https://doi.org/10.1145/3478432.3499182>
3. Morrison, B., and Decker, A. *Using Subgoals to Improve Student Performance in CS1*, Birds of a Feather Session: SIGCSE 2018, February 22, 2018.
4. **Decker, A.**, McGill, M.M., and Peterfreund, A. *Evaluating the Long-Term Impact of Pre-college Computing Activities*, Birds of a Feather Session: SIGCSE 2017, March 9, 2017.

Refereed Panel Session Participation (all authors present, lead in bold, *graduate student, +undergraduate student)

These sessions are submitted for review and juried in a manner similar to conference papers. Acceptance rates vary by venue and are often not published.

1. **Decker, A.**, Weiss, M.A., McGill, M.M., Morrison, B., Pérez-Quñones, M., and Yadav, A. 2024. *A Vision for the Next 15 Years of Computing Education*. Panel Session to be presented at the *2024 Frontiers in Education Conference*, October 2024, Washington, DC, October 13-18, 2024 (in press).
2. **Decker, A.**, Begel, A., Eiselt, K.. “Supporting Neurodivergent Students in Classrooms and into the Workplace”, Panel Session at *2023 CMD-IT/ACM Richard Tapia Celebration of Diversity in Computing Conference*. <https://tapiaconference.cmd-it.org/attend/2023-schedule/>
3. **Decker, A.**, Pérez-Quñones, M., McMullen, K., and Ordóñez, P. “The Value of Service in Advancing Careers: Exploring the Benefits and Types of Service”, Panel Session at *2023 CMD-IT/ACM Richard Tapia Celebration of Diversity in Computing Conference*. <https://tapiaconference.cmd-it.org/attend/2023-schedule/>
4. **Decker, A.**, Begel, A., Eiselt, K., and Shah, O. “Supporting Neurodivergent Students in Classrooms and into the Workplace”, Panel Session at *2022 CMD-IT/ACM Richard Tapia Celebration of Diversity in Computing Conference*, September 2022, Washington, DC. http://tapiaconference.cmd-it.org/wp-content/uploads/2023/01/TAPIA-2022-Program-PDF_compressed.pdf
5. **Decker, A.**, Pérez-Quñones, M., Gardner-McCune, C., and Erete, S. “The Value of Service in Advancing Careers: Exploring the Benefits and Types of Service”, Panel Session at *2022 CMD-IT/ACM Richard Tapia Celebration of Diversity in Computing Conference*, September 2022, Washington, DC. http://tapiaconference.cmd-it.org/wp-content/uploads/2023/01/TAPIA-2022-Program-PDF_compressed.pdf
6. Sahami, M., Astrachan, O., Czajka, S., Decker, A. and Rosato, J. *Should the AP Computer Science A Exam Switch to Using Python?* Panel Session at *53rd SIGCSE Technical Symposium of Computer Science Education*, March 2022, Providence, RI. <https://doi.org/10.1145/3478432.3499230>
7. **Decker, A.**, DePasquale, P., Raj, R.K., Jadud, M. *Bringing Industry Experience into the University Experience*. Panel at CCSC Northeast, April 2020.
8. **Decker, A.**, McGill, M.M., Schreiber, I., and Zinoveva, O. “Improving the Quality of New Hires in the Game Industry by Expanding the Pipeline”, Panel Session, Foundations of Digital Games 2014, Royal Caribbean Liberty of the Seas – Fort Lauderdale, FL, April 3-7, 2014.
9. Egert, C., Ventura, P., and Decker, A. “Putting the ‘Fun’ Back in Fundamentals: Using Games to Teach Object-Oriented Design Early”, Panel Session: Computer Gaming, *ASEE St. Lawrence Section Conference 2005*, Binghamton University, Binghamton, NY, April 8-9, 2005.

Refereed Poster Presentations (presenter underlined, lead in bold, *graduate student, +undergraduate student)

These sessions are submitted for review and juried in a manner similar to conference papers. Acceptance rates vary by venue and are often not published.

1. Mackay, S., and Decker, A. (2024) “Computer Science Curriculum Trends”, A poster presented at *SIGCSE 2024*, March 2024, Portland, OR, USA. <https://doi.org/10.1145/3626253.3635501>
2. Morrison, B.B., Decker A., Margulieux, L., and Bart, A.C. (2022) “Subgoals for CS1 in Python”, A poster presented at *ICER 2022*, August 2022, Lugano, Switzerland. <https://doi.org/10.1145/3501709.3544283>

3. McSkimming, B.M., Decker A. (2022) “Exploring Threshold Concepts for Intermediate Students”, A poster presented at *53rd SIGCSE Technical Symposium of Computer Science Education*, March 2022, Providence, RI, USA. <https://doi.org/10.1145/3478432.3499041>
4. Hertz, M., Alphonc, C., McSkimming, B.M., Decker A. (2022) “Who is Failing CS1? Surprising results from investigating DFW rates”, A poster presented at *53rd SIGCSE Technical Symposium of Computer Science Education*, March 2022, Providence, RI, USA. <https://doi.org/10.1145/3478432.3499091>
5. Howard, G. and Decker, A. (2020) “Predicting Behaviors of Advanced Persistent Threats Using Collaborative Filtering”, A poster presented at 15th International Conference on Cyber Warfare and Security (ICCWS), March 12-13, 2020, Norfolk, VA, USA.
6. **Decker, A.** and McGill, M. (2019) “Evaluating the Long-Term Impact of Pre-College Computing Education Phase 1 Overview”, A poster presented at *ASEE Annual Conference & Exposition*, June 16-19, 2019, Tampa, FL.
7. **Decker, A.**, Morrison, B., and Margulieux, L. (2019) “Developing Subgoal Labels for Imperative Programming to Improve Student Learning Outcomes”, A poster presented at *ASEE Annual Conference & Exposition*, June 16-19, 2019, Tampa, FL.
8. McGill, M.M., Decker, A. (2019) “Six Simple Steps to Help Grow the Quantity and Quality of Research Focusing on Broadening Participation in K-12 Computer Science Education using *csedresearch.org*”, A poster presented at *Research in Equity and Sustained Participation in Engineering, Computing, and Technology (RESPECT)*, February 27, 2019, Minneapolis, MN, USA.
9. Holliday, M.+ and Decker, A. (2018) “Women of Color and Role in Video Games”, A poster presented at *ACM Richard Tapia Celebration of Diversity in Computing*, September 19-21, 2018, Orlando, FL.
10. **Decker, A.**, and McGill, M. (2018) “Differences in Reporting of Outreach Research Data between CS Education and STEM Education”, A poster presented at *ICER 2018*, August 13-15, 2018, Espoo, Finland.
11. Smith, R.* and Decker, A. (2016) “Investigating QPoC Representation in Video Games”, A poster presented at *ACM Richard Tapia Celebration of Diversity in Computing*, September 14-17, 2016, Austin, TX.
12. **Decker, A.**, McGill, M.M., and Settle, A. (2015) “An Analysis of the Impact of Outreach Activities on Choices of Majors”, A poster presented at *Grace Hopper Celebration of Women in Computing 2015*, October 14-16, 2015, Houston, TX. <http://schedule.gracehopper.org/session/general-poster-session>
13. **Decker, A.**, McGill, M.M., and Settle, A. (2015) “Computing Outreach Literature Review”, A poster presented at *Research in Equity and Sustained Participation in Engineering, Computing, and Technology (RESPECT)*, August 13-14, 2015, Charlotte, NC. doi: 10.1109/RESPECT.2015.7296509
14. Skrien, D., Alphonc, C., Decker, A., Börstler, J., and Caspersen, M. (2009) “The Eighth “Killer Examples” Workshop: Good Examples for Exposing Bad Practice”, A poster presented at *OOPSLA 2009*, October 25-29, 2009, Orlando, Florida.
15. Decker, A., and Alphonc, C. (2009) “Closing the Feedback Loop: Using Historical Data and Student Feedback to Guide Course Changes”, A poster presented at *SIGCSE 2009*, March 4-7, 2009, Chattanooga, Tennessee.
16. Decker, A., Alphonc, C., Börstler, J., and Caspersen, M.E. (2008) “Worked Examples for Sound OO Pedagogy: The Seventh “Killer Examples” Workshop”, A poster presented at *OOPSLA 2008*, October 19-23, 2008, Nashville, Tennessee.

17. Alphonc, C., Börstler, J., Caspersen, M.E., Decker, A., and Kölling, M. (2007) “Process in OO Pedagaogy: The Sixth “Killer Examples” Workshop”, A poster presented at *OOPSLA 2007*, October 21-25, 2007, Montreal, Quebec, Canada.
18. Wang, G.+ , McSkimming, B.+ , Marzec, Z.+ , Gardner, J.+ , Decker A., and Alphonc, C. (2007) “Green: A Flexible UML Class Diagramming Tool for Eclipse”, A poster presented at *OOPSLA 2007*, October 21 – 25, 2007, Montreal, Quebec, Canada.
19. Gardner, J.+ , McSkimming, B.+ , Wang, G.+ - with Faculty Advisors Alphonc, C., and Decker A. (2007) “Green: A Software Design Tool Developed for Students by Students”, A poster presented at the *University at Buffalo’s Celebration of Academic Excellence*, April 19, 2007, Buffalo, NY.
20. Alphonc, C., Caspersen, M., Decker, A. and Trask, B. (2006) “*Fifth Killer Examples for Design Patterns and Objects First Workshop Results*”, A poster presented at *OOPSLA 2006*, October 22-26, 2006, Portland, OR.
21. **Decker, A.** and Alphonc, C. “*Does CS1 Have to Be So Syntactical?*” (2006) A poster presented at *OOPSLA 2006 Educator’s Symposium*, October 23, 2006, Portland, OR.
22. Alphonc, C., Caspersen, M., Decker, A., Kosa, M., and Wong, S. (2006) “*Objects First, Design Patterns Second: Lessons Learned from the ‘Killer Examples’ for Design Patterns and Objects First Workshops*”, A poster presented at the *37th SIGCSE Technical Symposium on Computer Science Education*, March 3, 2006, Houston, TX.
23. Alphonc, C., Caspersen, M., Wong, S. and Decker, A. (2005) “*Fourth Killer Examples for Design Patterns and Objects First Workshop Results*”, A poster presented at *OOPSLA 2005*, October 16-20, 2005, San Diego, CA.

Refereed Lightning Talk Presentations (presenter underlined, lead in bold, *graduate student, +undergraduate student)

These sessions are submitted for review and juried in a manner similar to conference papers. Acceptance rates vary by venue and are often not published.

1. Decker, A., and Weiss, M.A. (2024) “A Vision for the Next 15 Years of Computing Education”, A lightning talk presented at *SIGCSE 2024*. <https://doi.org/10.1145/3626253.3635349>
2. **Decker, A.** (2023) “Piecing Together the Next 15 Years of Computing Education Research: Report”, A lightning talk presented at *ICER 2023*. <https://icer2023.acm.org/program/program-icer-2023/>
3. McSkimming, B.M. and Decker, A. (2022) “Exploring Threshold Concepts for Intermediate Students”, A lightning talk presented at *53rd SIGCSE Technical Symposium of Computer Science Education*, March 2022, Providence, RI. <https://doi.org/10.1145/3478432.3499233>
4. McGill, M.M. and Decker, A. (2020) “Supporting Research on Inclusion in K-12 Computer Science Education using CSEdResearch.org”, A lightning talk presented at *Research in Equity and Sustained Participation in Engineering, Computing, and Technology (RESPECT)*, March 11, 2020, Portland, OR
5. **Decker, A.**, McGill, M.M., and Settle, A. (2015) “Computing Outreach Literature Review”, A lightning talk presented at *Research in Equity and Sustained Participation in Engineering, Computing, and Technology (RESPECT)*, August 13-14, 2015, Charlotte, NC. doi: 10.1109/RESPECT.2015.7296509

Refereed Demo Presentations (presenter underlined, lead in bold, *graduate student, +undergraduate student)

These sessions are submitted for review and juried in a manner similar to conference papers. Acceptance rates vary by venue and are often not published.

1. Wang, G.⁺, McSkimming, B.M.⁺, Marzec, Z.⁺, Gardner, J.⁺, Decker, A., and Alphonse, C. (2007) “Green: A Flexible UML Class Diagramming Tool for Eclipse”, A demo presented at *OOPSLA 2007*, October 21-25, 2007, Montreal, Quebec, Canada.

Doctoral Consortium Participation and Presentation

1. **Decker, A.** (2004) “How Students Measure Up: Creation of an Assessment Tool for CS1”, SIGCSE 2004 Doctoral Consortium: held in conjunction with the SIGCSE 2004 Technical Symposium on Computer Science Education, Norfolk, VA.
2. **Decker, A.** (2003) “I Want to be a Computer Scientist When I Grow Up: Evaluating the Skills Necessary for Computer Science”, SIGCSE 2003 Doctoral Consortium: held in conjunction with the SIGCSE 2003 Technical Symposium on Computer Science Education, Reno, NV.
<http://www.radford.edu/~sigcse/DC03/participants/decker.html>.

Invited Articles (lead in bold)

1. Clear, A., Becker, B.A., Denner, J., Garcia, D., Duran, R., Rankin, Y.A., Sheard, J., Decker A. (2023) “SIGCSE Board DEIA Update”. *SIGCSE Bulletin*. 55:2, 2-3.
<https://doi.org/10.1145/3607479.3607480>
2. Miller, J., Wallace, C., **Decker, A.** (2022) “Member spotlight: Adrienne Decker”. *SIGCSE Bulletin*. 54:2, DOI: <https://doi.org/10.1145/3538522.3538530>
3. **Decker A.** (2021) “ACM fellows and distinguished members in SIGCSE” *SIGCSE Bulletin*. 53:1, 2-3. DOI: <https://doi.org/10.1145/3457573.3457574>
4. **Decker A.** (2020) “SIGCSE organizational updates” *SIGCSE Bulletin*. 52:2, 2-4. DOI: <https://doi.org/10.1145/3397568.3397569>
5. **Decker A.** (2020) “SIGCSE members named distinguished ACM members” *SIGCSE Bulletin*. 52:1, 2. DOI: <https://doi-org.gate.lib.buffalo.edu/10.1145/3380469.3380470>
6. **Decker A.** (2020) “SIGCSE Board Initiatives” *SIGCSE Bulletin*. 51:4, 2-3. DOI: <https://doi.org/10.1145/3371394.3371395>
7. **Decker A.** (2019) “SIGCSE 2018 Travel Grant Program Awards” *SIGCSE Bulletin*. 51:2, 12-13. DOI: <https://doi.org/10.1145/3329103.3329111>
8. **Decker A.** (2019) “SIGCSE Top Ten Symposium Papers of All Time Award Winners” *SIGCSE Bulletin*. 51:2, 14-15. DOI: <https://doi.org/10.1145/3329103.3329112>
9. **Decker A.**, Weiss, M.A., Sheard, J. (2019) “Announcing the SIGCSE Test of Time Award” *SIGCSE Bulletin*. 51:2, 17. DOI: <https://doi.org/10.1145/3329103.3329115>
10. **Decker A.**, Weiss, M.A. (2019) “SIGCSE Top Ten Symposium Papers of All Time Award” *SIGCSE Bulletin*. 51:1, 9. DOI: <https://doi.org/10.1145/3310216.3310221>
11. **Decker A.** (2019) “Open Access to Past SIGCSE Proceedings” *SIGCSE Bulletin*. 51:1, 10. DOI: <https://doi.org/10.1145/3310216.3310223>
12. **Decker A.**, Eiselt, K., Alphonse, C. (2018) “Help us Celebrate 50 SIGCSE Technical Symposiums” *SIGCSE Bulletin*. 50:3, 2. DOI: <https://doi.org/10.1145/3243071.3243072>
13. **Decker A.**, (2018) “2018 SIGCSE Travel Grants” *SIGCSE Bulletin*. 50:3, 11. DOI: <https://doi.org/10.1145/3243071.3243078>
14. **Decker A.**, (2018) “2018 SIGCSE Travel Grant Program Awards” *SIGCSE Bulletin*. 50:1, 6-8. DOI: <https://doi.org/10.1145/3183559.3183562>
15. **Decker A.**, (2017) “2017 SIGCSE Travel Grants” *SIGCSE Bulletin*. 49:4, 7. DOI: <https://doi.org/10.1145/3157823.3157827>

16. **Decker, A.**, Phelps, A. and Egert. C.A. (2017) “Disappearing Happy Little Sheep” *Educational Technology*. 57:2, pp. 50-54.
17. **Decker, A.** and Eiselt, K. (2015) “SIGCSE Conference Report” *SIGCSE Bulletin*. 47:3, 2.
DOI=<http://dx.doi.org/10.1145/2822363.2822364>
18. **Decker, A.** and Eiselt K. (2015) “SIGCSE Symposium Preview” *SIGCSE Bulletin*. 47:1, 4-5
DOI=<http://dx.doi.org/10.1145/2728793.2728803>

Invited Presentations (lead in bold, all authors presented)

1. **Decker, A.**, Franklin, D., Porter, L., Spector, A., Weiss, M.A., and moderated by Libeskind-Hadas, R. (2024) “Visions for the Future of Computing Education”, A panel to be presented at the 2024 CRA Conference at Snowbird, July 25, 2024, Snowbird, UT, USA. (<https://cra.org/events/2024-cra-conference-at-snowbird/#agenda>)
2. **Decker, A.**, (2024) “Starting a Community of Practice for Equitable Grading Practices in Computer Science”, A lightning talk to be presented at the NSF IUSE PI Meeting, June 17, 2024, Washington, DC, USA.
3. **Decker, A.**, and Morrison, B., (2024) “Using Subgoal Labels to Better Support Student Learning in Introductory Programming Courses”, A poster to be presented at the NSF IUSE PI Meeting, June 16, 2024, Washington, DC, USA.
4. **Decker, A.**, (2024) “Identification of Threshold Concepts for Intermediate Computer Science Courses”, A poster to be presented at the NSF IUSE PI Meeting, June 16, 2024, Washington, DC, USA.
5. **Decker, A.**, Weiss, M.A., Ross, M., Weintrop, D., Pérez Quiñones, M., Morrison, B., McGill, M.M. (2024) “A Vision for the Next 15 Years of Computing Education”, A webinar for csedresearch.org webinar series, January 12, 2024.
6. **Decker, A.**, McGill, M.M., Morrison, B., Ross, M., Pérez Quiñones, M. (2023) “Report on the Workshop on the Future of CS Education”, A presentation at the NSF CISE EWF PI Meeting, June 21, 2023, Baltimore, MD, USA.
7. **Decker, A.**, Begel, A., Eiselt, K. (2022) “Supporting Neurodivergent Students in Classrooms and into the Workplace”, A webinar presented for AccessComputing, November 14, 2022.
8. **Decker, A.**, and McGill, M.M. (2019) “Establishing and Propagating a Model for Evaluating the Long Term Impact of Pre-College Computing Education”, A presentation at the NSF Research Showcase, presented in conjunction with SIGCSE 2019.
9. McGill, M.M., and Decker, A. (2019) “csedresearch.org: An Easy-to-use Resource for Finding Evaluation Instruments for your RPP”, A presentation at RPP for CS Webinar, January 30, 2019.
10. McGill, M.M., and Decker, A. (2019) “Growing the Quantity and Quality of Research Focusing on Broadening Participation in K-12 Computer Science Education using csedresearch.org”, A presentation at ECEP Webinar, January 8, 2019.
11. **Decker, A.**, and McGill, M.M. (2018) “Establishing and Propagating a Model for Evaluating the Long Term Impact of Pre-College Computing Activities”, A presentation at the NSF Research Showcase, presented in conjunction with SIGCSE 2018.
12. **Decker, A.**, and McGill, M.M. (2017) “Establishing and Propagating a Model for Evaluating the Long-term Impact of Pre-College Computing Activities”, A presentation at the RPPforCS Webinar: Focusing on Research Agenda, November 29, 2017.
13. **Decker, A.** (2017) “Evaluating the Long Term Impact of Pre-College Computing Activities”, A presentation at the GCCIS Research Showcase, April 28, 2017, Rochester Institute of Technology, Rochester, New York.

14. **Decker, A.** and Alphonse, C. (2012) “Computer Science K–8: Building a Strong Foundation”, A presentation at the 4th Annual Western New York CSTA Fall Conference, October 12, 2012, Buffalo, New York.
15. **Decker, A.** (2010) “Using Greenfoot, Games and Simulations to Introduce Programming to Students”, A presentation at the 2nd Annual Western New York CSTA Fall Conference, October 15, 2010, Buffalo, New York.

Invited Panel Participation (all authors presented)

1. Decker, A., Garcia, D., Astrachan, O., and Hu, H. (2018) “The 8th Big Idea”, A panel discussion at InfoSys Crossroads 2018, May 23, 2018, Santa Cruz, CA.

Invited Workshops

1. **Decker, A.** (2014) “Introduction to GameMaker *Workshop Leader: RU4CS*, Rutgers University, August 18-19, 2014.

POST-DOCTORAL RESEARCH ASSOCIATES

1. Brian M. McSkimming (UC Santa Barbara, PhD 2015, Materials Science & Eng) 7/2020 – 6/2022
Current Position: Assistant Professor, Engineering Pathways, The University of Oklahoma

GRADUATE STUDENTS

Dissertations/Theses Directed (as major professor unless otherwise indicated)

Ph.D. degrees

1. Anna Loparev, Ph.D., 2016, “The Impact of Collaborative Scaffolding in Educational Video Games on the Collaborative Support Skills of Middle School Students”, Computer Science Department, University of Rochester (outside reader).
Working at New Relic, Inc.

M.S. degrees (theses/projects)

1. Yeshe Paljor, M.S., 2022, “Bringing Digital Literacy and Safety to Immigrant Communities through Community-Based Design Processes” Department of Computer Science and Engineering, University at Buffalo
PhD student in GSE at UB
2. Anthony Saxon, MS, 2014, “A Cinematic Guide to Designing Martial Art Film-Based Video Games” Department of Interactive Games and Media, Rochester Institute of Technology.
Working at Naval Air Systems Command (NAVAIR)
3. Preston Johnson, MS, 2014, “A./V.” Department of Interactive Games and Media, Rochester Institute of Technology.
Working at MahiGaming
4. Doug Lynn, MS, 2014, “A./V.” Department of Interactive Games and Media, Rochester Institute of Technology.
Working at Aerotek

5. Alex Hogue, MS, 2014, “Shady Dealings” Department of Interactive Games and Media, Rochester Institute of Technology.
Working at Honey
6. Matthew Kauffman, MS, 2014, “Shady Dealings” Department of Interactive Games and Media, Rochester Institute of Technology.
Working at Rockstar Games
7. Avinash Krishnan, MS, 2014, “Shady Dealings” Department of Interactive Games and Media, Rochester Institute of Technology.
Working at Stellarplay Games
8. Dan Wild, MS, 2014, “Shady Dealings” Department of Interactive Games and Media, Rochester Institute of Technology.
Working at Axon

Dissertations/Theses Progress

1. Sean Mackay, Ph.D., 2020-Present, degree expected 2025
2. Holliday Sims, Ph.D., 2024-Present, degree expected 2029

Special Achievements of Graduate Students

1. Yeshi Paljor, Patricia Eberlein Master Student Thesis Award, UB CSE, May 2023.
2. Preston Johnson and Doug Lynn, Recipient of Excellence in Sensory Experience, Rensselaer GameFest2014, April 2014.

Dissertation/Thesis Committee Member

1. Luis Bobadilla, “Into the Paws of Madness”, Department of Interactive Games and Media, Rochester Institute of Technology, MS, 2013.
2. Sebastian Hernandez, “Into the Paws of Madness”, Department of Interactive Games and Media, Rochester Institute of Technology, MS, 2013.
3. Rob Link, “Into the Paws of Madness”, Department of Interactive Games and Media, Rochester Institute of Technology, MS, 2013, “Into the Paws of Madness”.
4. Nitin Nandakumar, “Into the Paws of Madness”, Department of Interactive Games and Media, Rochester Institute of Technology, MS, 2013, “Into the Paws of Madness”.
5. Bill Phillips, “Into the Paws of Madness”, Department of Interactive Games and Media, Rochester Institute of Technology, MS, 2013, “Into the Paws of Madness”.
6. Andrew Wilkinson, “Into the Paws of Madness”, Department of Interactive Games and Media, Rochester Institute of Technology, MS, 2013, “Into the Paws of Madness”.
7. Jia Xu, “Into the Paws of Madness”, Department of Interactive Games and Media, Rochester Institute of Technology, MS, 2013, “Into the Paws of Madness”.
8. John Araujo, “Unbroken”, Department of Interactive Games and Media, Rochester Institute of Technology, MS, 2013 “Unbroken”.
9. Daniel Whiddon, “Carbon Conquest”, Department of Interactive Games and Media, Rochester Institute of Technology, MS, 2013, “Carbon Conquest”.

PROFESSIONAL ACTIVITIES

Leadership

ACM Student Research Competition co-chair	July 2022-present
Immediate Past Chair, <i>ACM SIGCSE Board</i>	July 2022-June 2025
SIGCSE Board Liaison, <i>SIGCSE TS Steering Committee</i>	July 2022-June 2025
SIG Viability Advisor, <i>ACM SIG Governing Board Executive Committee</i>	July 2021-June 2025
Associate Editor, <i>Computer Science Education</i>	January 2024-present
Associate Editor, <i>IEEE Transactions on Education</i>	January 2021-May 2023
Chair, <i>ACM SIGCSE Board</i>	July 2019-June 2022
Treasurer, <i>ACM SIGCSE Board</i>	July 2016-June 2019
<ul style="list-style-type: none"> ○ SIGCSE Symposium Liaison ○ Special Projects Review Committee ○ Travel Grant Review Committee (Chair) ○ Top Ten SIGCSE TS Papers Committee (Chair) 	
Guest Editor, <i>IEEE Computing in Science and Engineering</i> , Best of RESPECT, Issue 3	May 2017-June 2017
Conference co-chair, <i>SIGCSE Technical Symposium on Computer Science Education</i>	2015
Secretary, <i>Western New York CSTA</i>	2008-2013

Journal Reviewer (ad hoc)

<i>ACM Transactions on Computing Education</i>	2012, 2014, 2015, 2016, 2018, 2019, 2020, 2021, 2022, 2023
<i>Advances in Engineering Education</i>	2023, 2024
<i>International Journal of STEM Education</i>	2021, 2022
<i>International Handbook of Engineering Education Research (chapter reviewer)</i>	2022
<i>Education Sciences</i>	2021
<i>Computer Science Education</i>	2009, 2011, 2012, 2017, 2018, 2019, 2020, 2024
<i>SN Social Sciences</i>	2020
<i>ACM Inroads</i>	2012, 2014, 2016, 2017, 2018
<i>IEEE Transactions on Education</i>	2016
<i>Electronics</i>	2016
<i>IEEE Computing in Science and Engineering</i>	2015
<i>Journal of Interactive Humanities</i>	2014
<i>Communications of the ACM</i>	2012

Conference Program Chair

<i>Conference on Research in Equity and Sustained Participation in Engineering, Computing, and Technology (RESPECT)</i>	Program co-chair: 2016
<i>SIGCSE Technical Symposium on Computer Science Education</i>	Program co-chair: 2014
Western New York CSTA's "College Computing Fair"	Program Chair: 2009
Western New York CSTA's "College Computing Fair"	Program Chair: 2008

Conference Associate Program Chair

SIGCSE Technical Symposium on Computer Science Education (Papers)	2016-2019, 2023-2024
Conference on International Computing Education Research (ICER)	2024
SIGCSE Technical Symposium on Computer Science Education (Posters)	2023 - 2024
International Society of the Learning Sciences Annual Meeting (ISLS)	2023 - 2024
ACM CompEd	2019, 2023

Innovation and Technology in Computer Science Education (*ITiCSE*) 2018, 2024

Conference Track Chair/Other Conference Committee Positions

Local Organizing Committee, *ISLS Annual Meeting* 2024
 Volunteer Committee co-chair, *ISLS Annual Meeting* 2024
 Academic Panel and Workshop Chair, *ACM Richard Tapia Celebration of Diversity in Computing* 2019, 2020
 50th anniversary celebration chair, *SIGCSE Technical Symposium on Computer Science Education* 2019
 Faculty Track Committee, *Grace Hopper Celebration of Women in Computing* 2016, 2017, 2018
 Pre-symposium events chair, *SIGCSE Technical Symposium on Computer Science Education* 2013
 Workshop co-chair, *SIGCSE Technical Symposium on Computer Science Education* 2011, 2012
 Committee, *OOPSLA Educator's Symposium* 2009

Conference Program Committee

New York Celebration of Women in Computing (NYCWIC) 2017
 Western New York CSTA's "Conversation about Computing" Program Committee 2008

Conference Reviewer

Conference on International Computing Education Research (ICER)
 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024
 SIGCSE Technical Symposium on Computer Science Education
 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2023,
 2024
 CMD-IT/ACM Richard Tapia Celebration of Diversity in Computing Conference
 2017, 2021, 2022, 2023, 2024
 ACM CompEd Conference 2019, 2023
 Conference on Innovation and Technology in Computer Science Education (ITiCSE)
 2005, 2006, 2007, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2017, 2018, 2023, 2024
 SIGCHI Conference 2022
 Innovation and Technology in Computer Science Education Working Group Reports 2016, 2017, 2019, 2022
 Frontiers in Education 2016, 2017, 2018, 2019, 2020, 2024
 ACM Southeast Conference 2019
 ASEE Annual Conference & Exposition 2019
 International Conference on the Learning Sciences 2018
 The Consortium for Computing Sciences in College: Eastern Region Conference (CCSC Eastern)
 2004, 2005, 2006, 2007, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017
 The Consortium for Computing Sciences in College: Northeastern Region Conference (CCSC NE)
 2009, 2010, 2011, 2012, 2013, 2014, 2015
 Conference on Information Technology Education and Conference on Research in Information Technology
 (SIGITE/RIIT) 2014, 2015
 OOPSLA Educator's Symposium 2009

Proposal Reviewer

NSF Panel 3 in 2024
 NSF Ad hoc proposal review 1 in 2024
 NSF Panel 1 in 2023
 NSF Panel 2 in 2022
 NSF Panel 2 in 2021
 NSF Panel 2 in 2020
 NSF Ad hoc proposal review 2 in 2020
 NSF Panel 2018

NSF Panel 2016

External Reviewing

Manhattanville College – Program Review 2020

UC Davis – Tenure and Promotion Review 2020

Task Force Membership/Other Committee Service

ACM Presidential Task Force on ACM By-laws November 2023-present

ACM SGB Task Force on SIG overhead May 2022-March 2023

ACM Presidential Task Force on SIG overhead January 2022-April 2022

ACM/IEEE CS2023 Software Development Fundamentals Knowledge Area Group 2021-2023

ACM Pubs Board Conferences Committee Author Experience Subgroup 2020-2022

ACM/IEEE Joint Task Force CC2020 2017-2020

SIGCSE Committee on the Implementation of a Discrete Mathematics Course 2003-2007

Advisory Board Membership

Code.org CSA Education Advisory Council 2021-2022

Alice Project (<http://www.alice.org/>) 2016-present

Judging

ACM Student Research Competition Grand Finals 2018, 2022

ACM Student Research Competition at Tapia Celebration of Diversity in Computing 2018

ACM Student Research Competition at Grace Hopper Celebration of Women in Computing 2017

ACM Richard Tapia Celebration of Diversity in Computing Poster Judge 2016

Workshop Refereeing

Good Examples for Exposing Bad Practice: The Eighth “Killer Examples” Workshop OOPSLA 2009

Worked Examples for Sound Object-Oriented Pedagogy: A “Killer” Workshop OOPSLA 2008

Process in OO Pedagogy: A “Killer” Workshop OOPSLA 2007

Fifth “Killer Examples” for Design Patterns Workshop OOPSLA 2006

Fourth “Killer Examples” for Design Patterns and Objects First Workshop OOPSLA 2005

Other Refereeing

EngageCSEdu submission reviewer 2018-2022

Focus Group Participation

Facilitator, College Board’s AP CSA National Advisory Board March 23-24, 2023

- Review of Proposed changes to CSA Curriculum Framework.

Participant, College Board’s AP Computer Science Focus Group February 25-26, 2017

- Discussion of AP CSA and AP CSP, college credit and placement for those courses, and future direction for courses.

Conference Session Chair

Frontiers in Education 2015

SIGCSE Technical Symposium on Computer Science Education 2012, 2013

Textbooks

- Review of two chapters from E. Koffman and P. Wolfgang. (2010) *Data Structures: Design & Use in Java*, Second Edition, John Wiley & Sons Publishing

- Technical review of entire manuscript for B. Sanders and C. Cumararatunge. (2007) *ActionScript 3.0 Design Patterns*. O'Reilly Publishers
- Review of eight chapters (entire text) from J. Gersting. (2007) *Mathematic Structures for Computer Science*, Sixth Edition. W.H. Freeman & Co. Publishers
- Review of fourteen chapters (entire text) from N. Dale and C. Weems. (2006) *Programming and Problem Solving with Java*, Second Edition. Jones & Barlett Publishers
- Review of one chapter from E. Koffman. (2004) *Objects, Abstraction, Data Structures and Design: Using Java*. John Wiley & Sons Publishing
- Review of thirty-one chapters (entire text) from F. Carrano and W. Savitch (2006) *Data Structures and Abstractions with Java*, Second Edition. Prentice Hall Publishers
- Potential audience and table of contents review for H. Hahn *Harley Hahn's Student Guide to Unix*, Third Edition. McGraw-Hill Publishing
- Book proposal review for M. Henry *Discrete Math for Students*. McGraw-Hill Publishing
- Review of twenty chapters (entire text) from W. Savitch (2003) *Absolute Java*. Addison-Wesley
- Review of twenty chapters (entire text) from C.T. Wu (2003) *An Introduction to Object-Oriented Programming with Java (3rd Edition)*. McGraw-Hill
- Review of twenty chapters (entire text) from J. Cohoon and J. Davidson (2004) *Java Program Design*, McGraw-Hill
- Review of twenty chapters (entire text) from S. Kamin, M.D. Mickunas, and E. Reingold (2002) *Pan Introduction to Computer Science Using Java (2nd Edition)*, McGraw-Hill

Membership in Professional and Honor Societies

Associate for Computing Machinery (ACM), Senior Member	2001-present
ACM Special Interest Group in Computer Science Education (SIGCSE), Member	2001-present
ACM Council on Women in Computing (ACM-W), Member	2015-present
American Society for Engineering Education (ASEE), Member	2019-present
Computer Science Teachers Association (CSTA), Member	2008-present
Western New York CSTA, Member { <i>Founding member</i> }	2008-present
Institute of Electrical and Electronics Engineers (IEEE), Member	2015-2016
IEEE Special Technical Community on Broadening Participation (STCBP), Member	2015-2024
Consortium for Computing Sciences in Colleges (CCSC), Member	2003-2006; 2011-2013
ACM Special Interest Group on Information Technology Education (SIGITE), Member	2008-2011
ACM Special Interest Group on Programming Languages (SIGPLAN), Member	2008-2010

UNIVERSITY SERVICE

Departmental Service (Engineering Education – UB)

Director of Graduate Studies	8/2021-present
Chair, DEE Tenure Track Search Committee	7/2021-4/2022
Member, Graduate Committee	6/2020-7/2021
Coordinator, Seminar Series	9/2019-8/2020

Departmental Service (Computer Science & Engineering – UB)

Computer Science BS/MS Program Coordinator	9/2010-8/2011
Undergraduate Student Advising	9/2010-8/2011
CSE 111-113-115-116 Undergraduate Teaching Assistants Hiring Committee	2010, 2011
CSE 113 Undergraduate Teaching Assistants Supervisor	9/2009-8/2011
CSE 101 Undergraduate Teaching Assistants Supervisor	9/2009-10/2009
CSE 115 Undergraduate Teaching Assistants Supervisor	1/2004-8/2011
CSE 115 Undergraduate Teaching Assistants Hiring Committee	2004, 2005, 2006, 2007, 2008, 2009
CSE Undergraduate Lab Assistants Supervisor	1/2006-9/2008
CSE Student Mentors Supervisor	1/2006-9/2008

CSE Student Mentors Hiring Committee	2006, 2007
CSE Freshmen Orientation Group Discussion Facilitator	2006, 2007, 2009
CSE Graduate Conference Reviewer	2006
Computer Science BA Program Revision Committee	2005-2006
Computer Science Curriculum Committee	2004-2005
CSE Promotional Video Committee Chair	2004
Chair, Discrete Structures Committee	2002-2003
Undergraduate Affairs Committee	2002-2011

School Committees and Service (School of Engineering and Applied Sciences – UB)

Tenure & Promotion Committee (DEE Representative)	2023-present
Graduate Academic Program Committee (DEE Representative)	2021-present
SEAS Awards Committee (DEE Representative)	2022-present
Learning Sciences Cluster Hire Committee	2021-2023
SEAS Dean's Achievement Award Reviewer	2022, 2023
SEAS Commencement	2008, 2009, 2010, 2011
Commencement Marshall	2008
Engineering Discovery Day (CSE Presentation)	2006

University Committees and Service (University at Buffalo)

University at Buffalo Academic Integrity Adjudication Pool Member	2019-present
UB Office of Educational Effectiveness Data & Learning Analytics Technician Search Committee	2021
University at Buffalo Faculty-to-Faculty Articulation Conference	2006
University at Buffalo Preview Day (CSE Presentation)	2006, 2007
University at Buffalo Open House (CSE Presentation)	2005, 2006, 2007, 2009, 2010

University Committees and Service (Rochester Institute of Technology)

Long Range Planning and Environment (LRPE) Committee	2015-2017
o Subcommittees:	
o Ombud's Office Review (2015-2016)	
o Middle States Document Feedback (2016-2017)	
President's Pedestrian Safety Committee	2014-2015
Faculty Plus/Minus Grading Study Participant	2012

School Committees and Service (Golisano College of Computing and Information Science – RIT)

GCCIS Ad hoc committee on Computing Education	2017-2019
GCCIS Curriculum Committee	2016-2017
Student Scholars Committee	2014-2017
Dean's Seed Funding Review Committee	2014, 2016, 2017
GCCIS Graduation Ceremony	2012, 2013, 2014, 2015, 2016

Departmental Service (School of Interactive Games and Media – RIT)

Chair, IGM Curriculum Committee	2016-2017
Chair, IGM Undergraduate Game Design and Development Curriculum Committee:	2016
IGM Graduate Admissions Committee	2013-2016
Chair, IGME 601 (Processes) Course Redesign Group	2012-2013
IGME 105/106 (Introductory Programming) Course Redesign Group	2012-2013
IGM Curriculum Committee	2011-2013
Chair, IGM First Year Courses Redesign Task Force	2011-2012
IGM Open House Tour Guide	2011-2013

COMMUNITY SERVICE

- Alden Central School District Volunteer 9/2012-9/2016
- o Kindergarten classroom assistant (2012-2013 & 2014-2015), Computer class assistant, Library assistant for library leveling project
- Alden Central School District’s Superintendent’s Search Committee (Community Group) 2/2013-5/2014

MENTORING ACTIVITIES

- Doctoral Consortium Panel Member: Tapia Celebration 2018
- CRA-W Mentoring at Grace Hopper Celebration of Women in Computing 2016
- ACM Student Chapter Faculty Advisor 1/2005-6/2009

TEACHING AND COURSES TAUGHT

University at Buffalo, Buffalo, NY

Session	Course	Class Size
Spring 2024	Computing Education Research*	4
Spring 2023	Computing Education Research*	25
Spring 2022	Computing Education Research*	20
Fall 2020	Special Topics in Eng Ed – Computing Education Research*	1
Fall 2019	Special Topics in Eng Ed – Computing Education Research*	7

*** Course that I proposed and developed**

Rochester Institute of Technology, Rochester, NY

Session	Course	Class Size
Fall 2017	Game Development and Algorithmic Problem Solving I	30
Spring 2017	Game Development and Algorithmic Problem Solving II	21
Fall 2016	Game Development Processes	23
Fall 2015	Game Development Processes	12
Fall 2014	Seminar in Educational Games*	17
Fall 2014	Game Development Processes	15
Spring 2014	Capstone Development	7
Fall 2013	Game Development Processes	19
Winter 2012	Seminar in Educational Games*	27
Fall 2012	Game Design Processes	16
Fall 2012	Game Software Design I (Sections 2 & 4)	26 & 27
Winter 2011	Game Software Design II (Section 5)	14
Winter 2011	Introduction to Programming for New Media (Section 2)	26
Fall 2011	Game Software Design I (Section 4)	29
Fall 2011	Introduction to Programming for New Media (Section 2)	17

*** Course that I proposed and developed**

University at Buffalo, Buffalo, NY

Session	Course	Class Size	Teaching Asst. U = Undergraduates G = Graduate
	** Course with multiple sections and multiple instructors. TAs would be split among all instructors for course.		
Spring 2011	Introduction to Computer Programming I (CSE 113 Sections A & B)	87 + 84 = 171	1 (U – Teaching) 2 (G – Teaching & Grading)

Spring 2011	Introduction to Computer Science for Majors I (CSE 115 Section A)	130	4 (<i>U – Teaching</i>) 1 (<i>G – Grading</i>)
Spring 2011	Computer Science for Non-Majors I (CSE 503)	5	Same as above
Fall 2010	Great Ideas in Computer Science (CSE 111 Sections A & B)	285	2 (<i>U – Teaching</i>) 3 (<i>G – Teaching & Grading</i>)
Fall 2010	Introduction to Computer Programming I (CSE 113 Sections B)**	66	1 (<i>U – Teaching</i>) 2 (<i>G – Teaching & Grading</i>)
Spring 2010	Introduction to Computer Programming I (CSE 113 Sections A & B)	86 + 111 = 197	1 (<i>U – Teaching</i>) 2 (<i>G – Teaching & Grading</i>)
Spring 2010	Introduction to Computer Science for Majors I (CSE 115 Section A)	115	3 (<i>U – Teaching</i>) 1 (<i>G – Grading</i>)
Spring 2010	Computer Science for Non-Majors I (CSE 503)	12	Same as above
Fall 2009	Computers: A General Introduction (CSE 101)	109	3 (<i>U – Teaching</i>) 1 (<i>G – Grading</i>)
Fall 2009	Introduction to Computer Programming I (CSE 113 Sections A & B)	70 + 121 = 191	1 (<i>U – Teaching</i>) 3 (<i>G – Teaching & Grading</i>)
Spring 2009	Introduction to Computer Programming I (CSE 113 Sections A & B)	85 + 121 = 206	3 (<i>G</i>)
Spring 2009	Data Structures (CSE 250)	67	2 (<i>G</i>)
Fall 2008	Introduction to Computer Science for Majors I (CSE 115 Sections A & B)**	72 + 45 = 117	3 (<i>U – Teaching</i>) 1 (<i>G – Grading</i>)
Fall 2008	Data Structures (CSE 250)	58	2 (<i>G</i>)
Spring 2008	Introduction to Computer Science for Majors I (CSE 115)	62	3 (<i>U – Teaching</i>) 1 (<i>G – Grading</i>)
Spring 2008	Computer Science for Non-Majors I (CSE 503)	7	Same as above
Spring 2008	Data Structures (CSE 250)	62	2 (<i>G</i>)
Spring 2008	Introduction to Computer Programming I (CSE 113 Sections A & B)	80 + 98 = 178	4 (<i>G</i>)
Fall 2007	Introduction to Computer Science for Majors II (CSE 116)	31	2 (<i>G</i>)
Fall 2007	Introduction to Discrete Structures (CSE 191)	80	3 (<i>G</i>)
Spring 2007	Introduction to Computer Science for Majors I (CSE 115 Sections A & B)	46 + 43 = 89	3 (<i>U – Teaching</i>) 2 (<i>G – Grading</i>)
Spring 2007	Computer Science for Non-Majors I (CSE 503)	6	Same as above
Spring 2007	Introduction to Discrete Structures (CSE 191)	77	2 (<i>G</i>)
Fall 2006	Introduction to Computer Science for Majors I (CSE 115 Section C) [co-taught with another instructor]**	61	4 (<i>U – Teaching</i>) 4 (<i>G – Grading</i>)

Fall 2006	Introduction to Computer Science for Majors II (CSE 116)	39	2 (G)
Fall 2006	Computer Science for Non-Majors II (CSE 504)	1	Same as above
Fall 2006	Introduction to Discrete Structures (CSE 191 A & B)	35 + 45 = 80	3 (G)
Spring 2006	Introduction to Computer Science for Majors I (CSE 115 Sections A & B)	62 + 65 = 127	3 (U-Teaching) 2 (G-Grading)
Spring 2006	Computer Science for Non-Majors I (CSE 503)	9	Same as above
Spring 2006	Introduction to Discrete Structures (CSE 191)	67	2 (G)
Fall 2005	Introduction to Computer Science for Majors I ** (CSE 115 Section C)	49	4 (U-Teaching) 2 (G-Grading)
Fall 2005	Introduction to Discrete Structures (CSE 191)	38 + 51 = 89	3 (G)
Spring 2005	Introduction to Computer Science for Majors I (CSE 115 Sections A & B)	68 + 44 = 112	5 (U-Teaching) 1 (G-Grading)
Spring 2005	Computer Science for Non-Majors I (CSE 503)	2	Same as above
Spring 2005	Introduction to Discrete Structures (CSE 191)	65	2 (G)
Fall 2004	Introduction to Computer Science for Majors I ** (CSE 115 Section D)	48	5 (U-Teaching) 3 (G-Grading)
Fall 2004	Introduction to Discrete Structures (CSE 191 Section A & B)	118	3 (G)
Spring 2004	Introduction to Computer Science for Majors I (CSE 115 Sections A & B)	74 + 54 = 128	4 (U-Teaching) 2 (G-Grading)
Spring 2004	Computer Science for Non-Majors I (CSE 503)	14	Same as above
Spring 2004	Introduction to Discrete Mathematics (CSE 191)	55	1 (G)
Fall 2003	Introduction to Computer Science for Majors II (CSE 116 Sections A & B)	45 + 33 = 78	2 (G)
Fall 2003	Computer Science for Non-Majors II (CSE 504)	1	Same as above
Fall 2003	Introduction to Computer Programming I (CSE 113 Section B)	68	2 (G)
Spring 2003	Introduction to Discrete Mathematics (CSE 191)	73	2 (G)
Spring 2003	Introduction to Computer Programming II (CSE 114 Sections A & B)	46 + 67 = 113	3 (G)
Fall 2002	Introduction to Computer Science for Majors I ** (CSE 115 Sections C & D)	75 + 80 = 155	5 (U - Teaching) 1 (G - Teaching) 2 (G - Grading only)

Fall 2002	Computer Science for Non-Majors I (CSE 503)	18	Same as above
Fall 2002	Great Ideas in Computer Science I (CSE 111)	183	4 (G)
Summer 2002	Programming Languages (CSE 305)	38	0
Spring 2002	Great Ideas in Computer Science I (CSE 111)	89	2 (G)
Spring 2002	Computer Science for Non-Majors II (CSE 504)	8	1 (G)
Fall 2001	Introduction to Computer Science for Majors I ** (CSE 115 Section A)	96	10 (G)
Summer 2001	Introduction to Computer Science for Majors I (CSE 115)	31	0

Niagara County Community College, Sanborn, NY

Session	Course	Class Size
Fall 2001	Introduction to Computer Systems	18

Total students taught in career to date: 4,737

ADDITIONAL TEACHING AND CURRICULUM CONTRIBUTIONS

Curriculum Development

Computing Education Research

Fall 2019, Fall 2020, Spring 2022, Spring 2023, Spring 2024

Developed a new course for the Department of Engineering Education focusing on current themes and trends in computing education. The course is designed to be an exploration in the underlying theories of learning, cognitive science, and education and underpin current work in computing education. Students are encouraged to explore a topic of interest to them and create a proposal for a research study to explore their topic of interest.

Game Development Processes

Fall 2013, 2014, 2015, 2016

Moved the content of the quarter course into semesters and shifted focus toward improving student communication skills (oral presentation) through the introduction of several different types of activities. In Fall 2015 and 2016, the course integrated elements of role-play throughout the course as a mechanism for structuring the course activities and assignments.

Educational Games

Winter 2012

Proposed and created a seminar in education games for the undergraduate and graduate levels. Incorporated important readings and findings in learning sciences as well as game design to construct a seminar in which students produced their own educational games. Discussions around evaluation, analysis, and research methodologies for learning games were also key to the course content.

Game Software Design I

Fall 2011/Fall 2012

Redesigned the introductory game software design course to integrate Greenfoot environment which provides a development environment for students to create graphical and interactive games and/or simulations right from the first day of the course. To properly utilize the environment, the entire set of hand-on class activities, homework assignments, and examples needed to be re-written. In the two iterations of the course I have taught, the students completed Pac-Man and Centipede as their final projects for the quarter.

Graphical Objects-First Computer Science I

Fall 2006/Spring 2007/Spring 2008/Fall 2008/Spring 2010/Spring 2011

Continued work on graphical objects-first introduction to computer science I course (see below). In Fall 2006, a text that I co-authored began to be used as the main text for the course. Along with the introduction of this text (which is still being used to present), the examples and assignments of the course were designed to complement the ordering and content of the book. A graphics library (implemented by one of the teaching assistants) was also introduced at this time to allow the students a gentler introduction to graphics programming in Java. In 2010, automatic grading of student assignments (via Web-CAT) was introduced and I was responsible for creating the testing code that was used for my student's assignments. During this time, additional final projects were developed for the use in the course including Dr Mario, Battleship, and a redesign of a Tron Light Cycles assignment that was given previously.

Introduction to Computer Programming for Non-Majors (Greenfoot)

Spring 2010/Fall 2010/Spring 2011

Redesigned the introductory programming for non-majors course to use the Greenfoot environment as the primary development environment for the students. Using Greenfoot allowed the students to interact with graphical programs from the first day. In Spring 2011, I introduced a unit at the beginning of the course that used the Scratch programming environment. The students then transitioned into the Greenfoot environment in week 3 of the semester. In the three semesters of the redesign, homework assignments and in-class examples were constructed to complement the new approach. In Fall 2010 and Spring 2011, assignments were graded using an automatic grading system (Web-CAT) and I designed the testing code for the assignments for this course.

Great Ideas in Computer Science

Spring 2002/Fall 2002/Fall 2010

In the course, Great Ideas in Computer Science, a breadth of topics in computing should be introduced to students. In the 2002 offerings, I created course modules to correspond to the History of Computing and important people in computing history. The original module included lectures and accompanying slides. I found out later that the slides were being used by others to teach history of computing at other institutions. In the 2010 offering, assignments were created for the students to work on in regards to historical events and important people. Additionally for the 2010 offerings, modules were created that incorporated many CS Unplugged activities as well as the use of Scratch as the programming environment for the students. In 2002, JavaScript was used for the programming unit for students and at the end of the semester, the students picked one of eight games to implement (Blackjack, Hangman, Who Wants to be a Millionaire, Crossword, Pick up sticks, Tic Tac Toe, Poker, Memory).

Introduction to Computer Programming for Non-Majors (Media Computation)

Spring 2008/Spring 2009

Adopted the Media Computation approach (Georgia Tech) for the introductory programming for non-majors course. Integrated the DrJava programming environment for use in the course and designed complimentary assignments for the approach and environment.

Discrete Structures (Discrete Mathematics)

Spring 2003/Spring 2004/Fall 2004/Spring 2005/Fall 2005/Spring 2006/Spring 2007

Starting in Spring 2003, I worked on a Discrete Structures (Mathematics) curriculum that better integrated computer science concepts in with the discrete math topics. To this end, I created a series of programming exercises that were integrated as assignments in the course. There was a semester-long project of developing a graph ADT and implementing associated graph algorithms as well as a series of shorter programming assignments dealing with logic, Prolog, sets, relations, and trees. Several texts were adopted during my tenure as instructor that integrated aspects of computer science as well as active learning techniques for the course.

Graphical Objects-First Computer Science I

Summer 2001/Fall 2001/Fall 2002/Spring 2004/Fall 2004/Spring 2005/Fall 2005/Spring 2006

Continued work on a graphical objects-first computer science 1 for majors. Developed new assignments and examples based on the work started at Brown University in their CS015 course. Adopted the NGP graphics library from Brown to allow students to more easily create graphical programs. I supervised the development of a physics package that allowed for basic collision detection, gravity and friction to be used inside CS1 projects. Projects that I developed (alone or in conjunction with the other instructors for the course) during this time included Pac-Man, Number Munchers, Centipede, Tron Light Cycles/Nibbles, and Diamond Mine.

STUDENT SUPERVISIONCo-Op Students Supervised

Ma'kiah Holliday	2017
<i>NSF IUSE (1625335) Evaluation instrument gathering classification</i>	
Alex George	2012
<i>K.E.R.M.I.T. initial development</i>	
Peter Thorpe	2012
<i>K.E.R.M.I.T. initial development</i>	

Independent Student Research Projects Supervised

Exploration of Open-Ended Problems in Engineering Education	2023
<i>Graduate Student: Christopher Romeo</i>	
Preliminary investigation into the use of Open-Ended Problems in the domain of engineering education.	
Women of Color (WOC) Representation in Video Games	2016-2018
<i>Undergraduate Student: Ma'kiab Holliday</i>	
Investigation into the representation of Women of Color (WOC) in video games and how WOC perceive themselves as part of the gaming culture.	
Investigation of Video Game Influence amongst Bisexual People of Color	2016-2017

Undergraduate Student: Ila Vaughan

Investigation into the influence of video games on Bisexual People of Color. Interested in studying how representation affects the perception of self for this cross-sectional group.

QPoC Representation in Video Games 2015-2017

Graduate Student: Roger Smith

Investigation into the representation of Queer People of Color (QPoC) in video games. Investigations included an online survey (many quantitative in nature) and face-to-face interviews to find out perceptions of QPoC about representation in video games and what impact that had on them.

MonoFoot 2014-2015

Graduate Student: Alex Herdzyk

Creation of a C# graphics library on top of MonoGame that mimics many of the same interactions as the Greenfoot environment. The end goal of this library was integration into the first course in the IGM programming sequence. The library has been created and is functional. Curriculum needs to be written to adopt the use of the library.

K.E.R.M.I.T. (Kinecting Education Relevance and Media in Introductory Teaching) 2012-2013

Undergraduate Students: Thomas Bentley, Luke Familo, Alex George, Peter Thorpe

Development of a Visual Studio Add-In for introductory game software development students that allows for the creation of games and simulations in a multimedia-enabled environment. Students create graphical programs that can integrate sound and user input via keyboard, mouse, game pads, and the Microsoft Kinect during their first course of study in programming in the game design context.

Green UML Tool Development 2006-2011

Students: Robert Dygert, Joshua Gardner, John Kirchgraber, Zachary Marzec, Brian McSkimming, Jeffrey Meyer, Austin Miller, Daniel Padgett, Moses Vaughan, Gene Wang, Sean Weppner

Supervision and guidance of the students providing the continual development of the Green UML Tool. Currently implemented as a plug-in to the Eclipse development environment, this tool is an open-source UML diagramming tool used by students in UB's CSE 115 and CSE 116 course. It is also available for download and was being used outside the university.

Traffic Controlling System Design & Study 2008

Undergraduate Student: Jianqiao Zhu

Research into methods of studying traffic flow and how to better control traffic patterns and traffic light synchronization by processing GPS information and using aspects of graph theory.

Undergraduate Research in Computer Science Education 2007

Undergraduate Student: Kari Bancroft

Initial development of a study to see what effect visualizations have on the learning experience for students in undergraduate computer science courses.

Game Design and Implementation: NES Platform 2007

Graduate Student: Mark Zorn

Exploration of the technologies used in the original 8-bit Nintendo gaming system. Student developed an understanding of the language, compiler, and limitations of this early gaming technology while creating a game in this environment.

CSE 115 Graphics Package 2006

Graduate Student: Michael Kozelsky

Development of graphics package for use by the students enrolled in CSE 115 (CS1) in the Java programming language. Package was built upon existing Java graphics capabilities, but designed to be easier for students to use so that the students could create graphical programs from scratch faster than with traditional raw Java code. Package has been used to facilitate creation of simulation environments and games by the students in the CS1 course.

Game Design and Implementation: Microsoft Platform 2006

Undergraduate Student: Jason Abofsky

Using Visual Studio, C++, DirectX and some basic graphics and gaming algorithms, a prototype game was developed as a sequel to work previously done by the student. This adventure-style game takes its main character Dabu through various worlds where he is required to pick up items and face off against menacing villains.

Survey of Projects for Discrete Structures 2006

Undergraduate Student: Benjamin Robboy

Creation of survey of published projects and activities for Discrete Structures courses created by student using published resources and websites. A prototype project was constructed to allow students to better explore the applications of the material in Discrete Structures to the computing field. Project assigned to students in Fall 2006 semester.

CSE 115 Course Materials for Instructors and Teaching Assistants 2006

Undergraduate Students: W. Clark Dever, Michael Kozelsky, Jimmie Perrin

Creation of reference materials for CSE 115 course including complete set of lecture notes, guidelines for teaching assistants with sample lesson plans and exploration of web technologies for improving course web site.

CSE 115 Physics Package 2004-2005

Undergraduate Student: Sara Haydanek

Creation of a Physics API in Java that is integrated with NGP (Graphics Package used in CSE 115) and provides a framework for students for doing basic collision detection, gravity, and friction within their programs for CSE 115. Used for the first time in Spring 2005 for the final lab of CSE 115. Paper submitted and accepted to CCSC Eastern Conference 2005 and won Best Paper Award at conference.

INDUSTRIAL AND ACADEMIC COLLABORATIONS

Intelligenesis LLC 6/2019-present

CONSULTING

Institute for Advancing Computing Education (formerly csedresearch.org) 9/2022-present

MEDIA COVERAGE

1. Egan, Elizabeth. (2024) "Adrienne Decker accepted into executive leadership program", (July 1, 2024).
<https://engineering.buffalo.edu/home/news/seas.host.html/content/shared/engineering/home/articles/news-articles/2024/adrienne-decker-accepted-into-executive-leadership-program.detail.html>
2. Anzalone, Charles. (2023) "UB, partners awarded \$2 million to study equitable grading in computer education", (March 13, 2023).

- <https://engineering.buffalo.edu/home/news/seas.host.html/content/shared/university/news/news-center-releases/2023/03/013.detail.html>
3. Robinson, Marcene. (2021) “UB receives grant to support neurodiverse students in computer science”, (October 7, 2021).
<http://engineering.buffalo.edu/home/news/seas.host.html/content/shared/engineering/home/articles/news-articles/2021/ub-receives-grant-to-support-neurodiverse-students-in-computer-s.detail.html>
 4. WGRZ Staff. (2021) “UB receives grant to provide neurodiversity training for computer science faculty”, (October 6, 2021). <https://www.wgrz.com/article/sports/college/university-buffalo/ub-receives-grant-to-provide-neurodiversity-training-for-computer-science-faculty/71-4d78923c-de1d-4cea-8d4f-9783018e78a8>
 5. “Decker's computing education research featured at Frontiers in Education conference”, (November 11, 2020). http://engineering.buffalo.edu/engineering-education/news-events/latest_news.host.html/content/shared/engineering/engineering-education/articles/2020/decker-computing-ed-research-paper.detail.html
 6. “Decker to Present Paper at ACM ITiCSE Conference”, (June 5, 2020).
http://engineering.buffalo.edu/engineering-education/news-events/latest_news.host.html/content/shared/engineering/engineering-education/articles/2020/decker-to-present-paper-at-acm-iticse-conference.detail.html
 7. D’lorio, Sarah. (2019) “Adrienne Decker Elected Chair for Association for Computing Machinery SIGCSE”, UB SEAS News (October 7). http://engineering.buffalo.edu/engineering-education/news-events/latest_news.host.html/content/shared/engineering/engineering-education/articles/2019/Adrienne-Decker-elected-chair-for-Association-for-Computing-Machinery-SIGCSE.detail.html
 8. Morphy, Marcia. (2017) “Adrienne Decker Named Critical Thinking Fellow”, RIT News (July 10).
<https://www.rit.edu/news/adrienne-decker-named-critical-thinking-fellow>
 9. Bureau, Scott. (2016) “Professor to Study K-12 Computing Education”, RIT News (September 16).
<https://www.rit.edu/news/professor-study-k-12-computing-education>

PROFESSIONAL DEVELOPMENT

- 2023 – Attended CRA Leadership Academy
- 2021 – Attended ACM Conference on International Computing Education Research
- 2021 – Attended ACM Innovation and Technology in Computer Science Education Conference
- 2021 – Attended ACM SIGCSE Technical Symposium on Computer Science Education
- 2020 – Attended ACM Richard Tapia Celebration of Diversity in Computing
- 2019 – Attended ACM Richard Tapia Celebration of Diversity in Computing
- 2019 – Attended AR/VR Conference (University at Buffalo, April 2019)
- 2018 – Attended Grace Hopper Celebration of Women in Computing
- 2018 – Attended NSF CISE PI Meeting
- 2017 – Attended Grace Hopper Celebration of Women in Computing
- 2017 – Attended ICER 2017 Conference
- 2017 – Attended NSF CISE PI Meeting
- 2016 – Attended Grace Hopper Celebration of Women in Computing
- 2016 – Attended Denice Denton Emerging Leaders Workshop
- 2014 - Attended #TeachCS Conference (WNY CSTA Conference)

- 2014 – Selected to participate in the First Workshop on Diversity in Games Research (DiGR)
- 2014 – Selected to attend Microsoft Faculty Summit 2014
- 2013 – Attended Game Developer’s Conference (GDC) 2013
- 2012 – Attended Connecting Computing Communities (WNY CSTA Conference)
- 2012 – Attended GLS 8.0 Conference
- 2012 – Attended SIGCSE 2012 Conference
- 2011 – Attended SIGCSE 2011 Conference
- 2010 – Attended SIGCSE 2010 Conference
- 2009 – Attended Creating a Network: Connecting K through 16 Computing Education in WNY (WNY CSTA Conference)
- 2009 – Attended BlueJ/Greenfoot Day 2009 (Half-day mini-conference held at SIGCSE 2009)
- 2008 – Attended OOPSLA Educator’s Symposium [Educator’s Symposium Scholarship Recipient]
- 2008 – Writing More Effective NSF Proposals: Stephen Cooper, Timothy Fossum– Presenters (Workshop held at SIGCSE 2008)
- 2008 – Teaching and Testing the Middle Novice Programmer: Raymond Lister – Presenter (Workshop held at SIGCSE 2008)
- 2008 – BlueJ/Greenfoot Day 2008 (Half-day mini-conference held at SIGCSE 2008)
- 2007 – Green Bar for C++ - Unit Testing and Refactoring C++: Peter Somerlad – Presenter (Tutorial held at OOPSLA 2007)
- 2007 – Attended OOPSLA Educator’s Symposium [Educator’s Symposium Scholarship Recipient]
- 2007 – Teaching Objects First in an Enlightening, Exciting Manner: David Gries - Presenter (Workshop held at SIGCSE 2007).
- 2006 – Attended OOPSLA Educator’s Symposium [Educator’s Symposium Scholarship Recipient]
- 2005 – Attended OOPSLA Educator’s Symposium [Educator’s Symposium Scholarship Recipient]
- 2004 – Attended OOPSLA Educator’s Symposium [Educator’s Symposium Scholarship Recipient]
- 2004 – Designing with Patterns: John Vlissides – Presenter (Tutorial held at OOPSLA 2004).
- 2004 – Java Generics: Angelika Langer – Presenter (Tutorial held at OOPSLA 2004)
- 2004 – DMS 612 – Programming for Web Design: Christopher Egert - Instructor (Semester Course).
- 2002 – Attended SIGCSE 2002 Conference.