



Nalini K Ratha

Homepage

Research category: AI, Interdisciplinary

Research area: Computer vision, Privacy-Preserving Machine Learning, Privacy and security in AI, Biometrics, AI Fairness, AI Explainability, Trustworthy AI, Federated Learning, Machine Learning on Encrypted Data

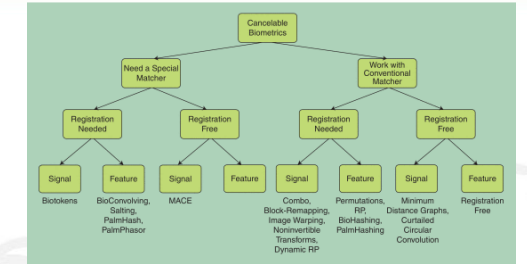
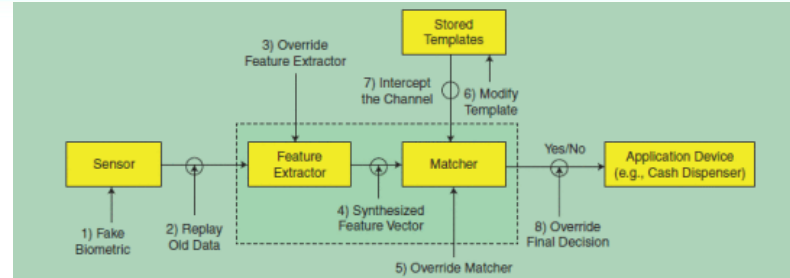
Research application: Human Identification, Face Analytics, Human Activity analysis, Adversarial attack detection, Sport-video analytics, Mobile Authentication, Biometrics fusion

Selected research projects:

NSF CITER:

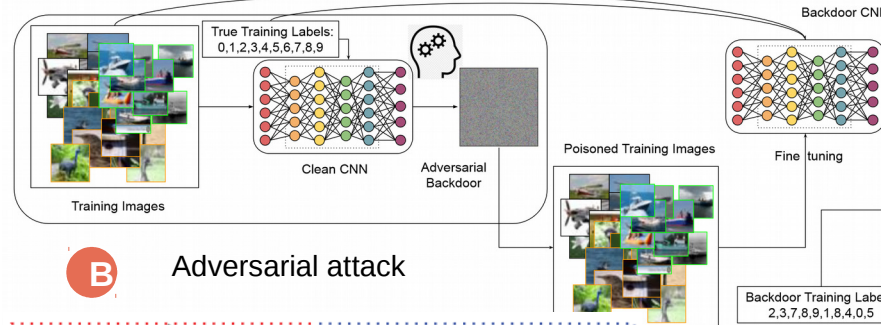
- Touchless fingerprint recognition using mobile phones at the border crossing
- Fully Homomorphic Encryption in Biometrics
- Explainable Mechanisms for Deep Neural Networks: A Biometrics Perspective
- Biometrics Image Assurance: From Hardware to Software

SUNY-IBM: Machine Learning on Encrypted Data



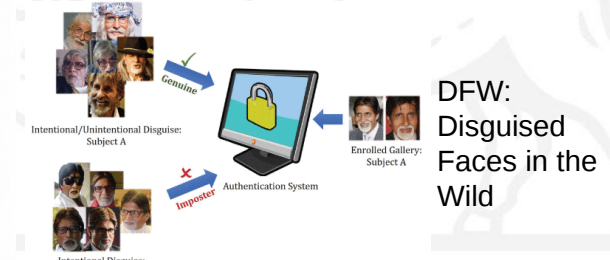
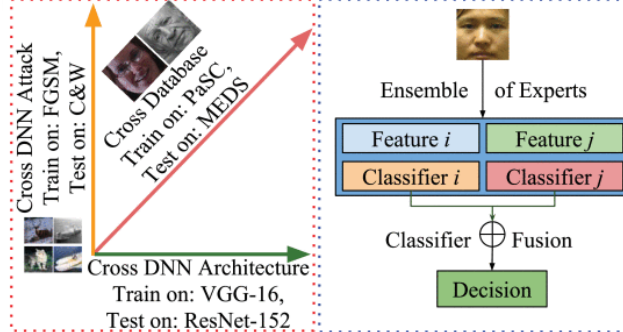
A

Cancelable biometrics

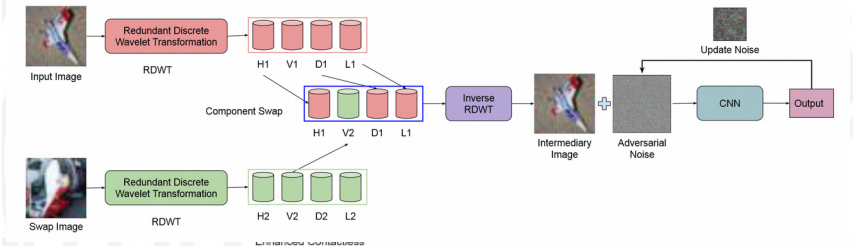


B

Adversarial attack

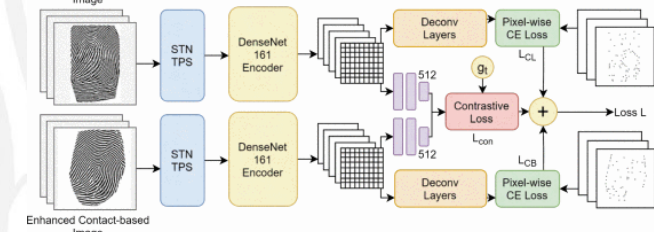
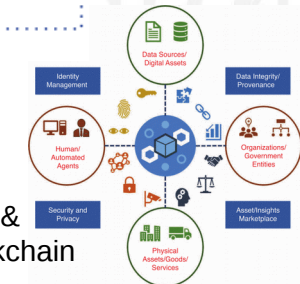


DFW: Disguised Faces in the Wild



C

FHE & Blockchain



D

Mobile touchless fingerprint