

# Kaiyi Ji

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**Research Category:** A) Theory, B) Artificial Intelligence

**Research Area:** Optimization, Machine Learning, Big Data Analytics, Federated Learning and Networks

**Research Application:** Edge Computing, Image Processing, Data Science Applications

**Selected Research Projects:**

Bilevel Optimization for Deep Learning and Edge Computing

Provable Algorithms for Meta-Learning and Continual Learning with Streaming Data or Tasks

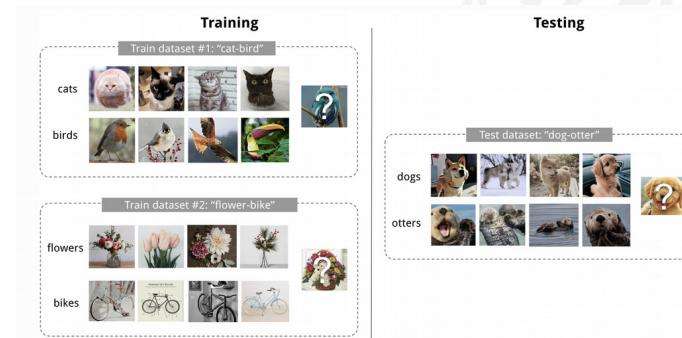
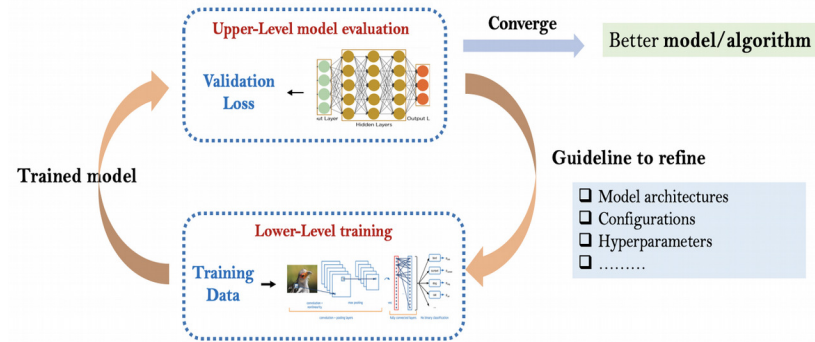
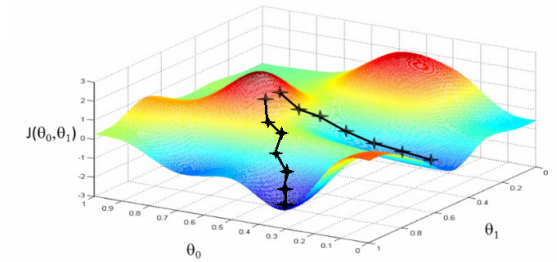
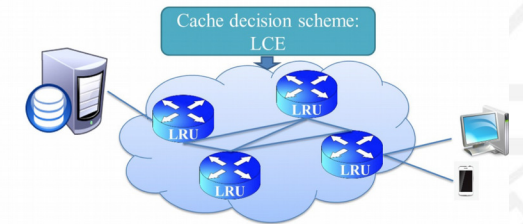


Fig. 1. An example of 4-shot 2-class image classification. (Image thumbnails are from Pinterest)

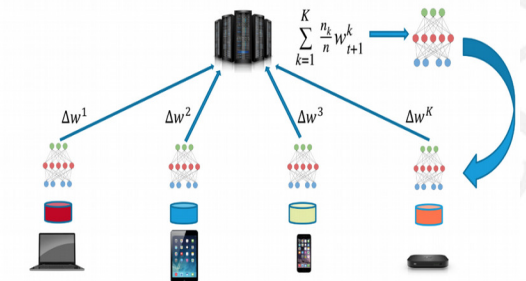
Learn to Extract Prior Knowledge



Optimization for Machine Learning



Resource Allocation over Networks



Federated Learning over Edge Devices