Jiawei Zhao

Ph.D. student, Department of Computing + Mathematical Sciences   jiawei@caltech.edu
California Institute of Technology   (+1) 626-491-5558
1200 E California Blvd   https://github.com/jiaweizzhao
Pasadena, CA 91125   jiawei-zhao.netlify.com

EDUCATION

- **California Institute of Technology**
  Ph.D. student, Computing and Mathematical Sciences   *Sep. 2019 - Present*

- **Nanjing University of Aeronautics and Astronautics**
  BE, Computer Science and Technology   *Sep. 2015 - Jun. 2019*

PUBLICATIONS

- Jeremy Bernstein[*], **Jiawei Zhao**[*], Kamyar Azizzadenesheli, Anima Anandkumar, *"signSGD with Majority Vote is Communication Efficient and Byzantine Fault Tolerant"*, Seventh International Conference on Learning Representations **(ICLR'19)**, New Orleans, United States, May 2019 ([*]equal contribution)

- Shengjun Huang, **Jiawei Zhao**, Zhaoyang Liu, *"Cost-Effective Training of Deep CNNs with Active Model Adaptation"*, Proc. of 2018 ACM SIGKDD Int. Conf. on Knowledge Discovery and Data Mining **(KDD'18)**, London, United Kingdom, August 2018

RESEARCH EXPERIENCE

- **SignSGD with Majority Vote in Large-Scale Deep Learning**
  California Institute of Technology   *Apr.2018 - Oct.2018*
  Advisor: Prof. Animashree Anandkumar

  - Proposed a novel distributed training system with signSGD that can reduce time cost of communication between machines and accelerate convergence performance.
  - Realized a 25% reduction in time for training resnet50 on ImageNet when using 15 AWS p3.2xlarge machines, compared with the state-of-the-art Nvidia Collective Communications Library (NCCL).
  - Published a paper that was accepted by ICLR 2019.

AWARDS AND HONORS

First Prize Innovation Award, NUAA 2018
Principal Excellent Scholarship, NUAA 2018