

# Hao Zhang

3363 Lebon Drive, Apt. 203  
San Diego, CA 92122

Phone: (412) 499-1581  
Email: [haozhang@ucsd.edu](mailto:haozhang@ucsd.edu)  
[sjtu.haozhang@gmail.com](mailto:sjtu.haozhang@gmail.com)  
Homepage: <https://cse.ucsd.edu/~haozhang>

## Research Interest

I study the intersection area of machine learning and systems. I am equally interested in designing strong, efficient, and secure machine learning models and algorithms, and in building scalable, practical distributed systems that can support real-world machine learning workloads.

## Education

Robotics Institute, School of Computer Science, Carnegie Mellon University

Ph.D. in Robotics, 2014 - 2020

*Advisor:* Eric Xing

*Ph.D. Dissertation:* Machine Learning Parallelism Could Be Adaptive, Composable and Automated.

Department of Computer Science and Engineering, Shanghai Jiao Tong University

M.S. in Computer Science, 2011 - 2014

School of Computer Science and Engineering, South China University of Technology

B.E. in Computer Science, the Elite Class of Computer Science, 2008 - 2011

## Positions

*University of California, San Diego*

Assistant Professor, July 2023 - Present.

*University of California, Berkeley*

Postdoctoral Researcher, with Ion Stoica, August 2020 - July 2023.

*Petuum Inc, Pittsburgh*

Research Scientist, Jan 2020 – Jan 2023.

Director of Scalable ML, December 2017 – Jan 2020.

Tech Lead, May 2017 – December 2017.

Consultant, Jul 2016 – May 2017.

*Microsoft Research Asia, Beijing*

Research Intern, July 2013 - January 2014.

*Microsoft, Shanghai*

SDE Intern, September 2012 - April 2013.

## Awards and Honors

**Jay Lepreau Best Paper Award**, OSDI 2021.

**NVIDIA Pioneer Research Award**, NeurIPS 2017.

Excellent Graduates (top 5%), Shanghai Jiao Tong University, 2014.

Scholarship for Graduates, Shanghai Jiao Tong University, 2011 - 2014.

Google Excellence Scholarship, Google Inc., 2013.

Early Graduate Honor (top 1%), South China University of Technology, 2011.

Excellent Undergraduates, South China University of Technology, 2008 - 2011.

1<sup>st</sup> Class Scholarship (top 10%), South China University of Technology, 2008 - 2011.

## Publications

See [Google Scholar Profile](#)

## Professional Service and Leadership

**Cofounder.** [LMSYS Org.](#)

**Organizer.** RISE Camp 2021.

**Program Committee.** AAAI, UAI, ICML, NeurIPS, MLSYS.

**Reviewer.** ICLR, NeurIPS, ACL, ECCV, AISTATS, ICML, NACCL HLT, CVPR, ICCV, TPAMI, SCIS, IET Computer Vision, MVAP, TCC, VLDB, etc.

**Volunteer.** ICML, KDD.

## Tutorial and Invited Talks

**Tutorial**, “Welcome to the “Big Model” Era: Techniques and Systems to Train and Serve Bigger Models”. ICML 2022, with Zhuohan Li, Lianmin Zheng, and Ion Stoica.

**Tutorial**, “Simple and Automatic Distributed Machine Learning on Ray”. KDD 2021, with Zhuohan Li, Lianmin Zheng, and Ion Stoica.

**Tutorial**, “Simplifying and Automating Parallel Machine Learning via a Programmable and Composable Parallel ML System”. AAAI 2021, with Aurick Qiao, Qirong Ho and Eric Xing.

**Invited Talk**, “Collective-on-Ray: High-performance Collective Communication for Distributed Machine Learning on Ray”. Ray Summit 2021.

**Invited Talk**, “Machine Learning Parallelism Could Be Adaptive, Composable, and Automated”. UC Berkeley RISELab Seminar, 2020.

**Tutorial**, “Arion: a Next-generation Distributed Deep Learning Virtual Machine”. ICML 2019 Expo Day. .

**Invited Talk**. “Cavs: A Vertex-centric Programming Interface for Dynamic Neural Networks”. NeurIPS 2017 MLSys Workshop.

## Patents

A System with Hybrid Communication Strategy for Large-scale Distributed Deep Learning. US Patent US0330276A1, 2018.

Structure Correcting Adversarial Network for Chest X-Rays Organ Segmentation. US Patent US0276825A1, 2018.

Last updated: August 21, 2023