

Jifan Zhang

CS Ph.D. Student at University of Wisconsin

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Education

Sep 2021 - Present University of Wisconsin, Madison
Ph.D. in Computer Science
Research interest: large-scale and data-efficient learning.
Advisor: Robert Nowak

Sep 2016 - Mar 2021 University of Washington, Seattle
Mar 2021 M.S. in Computer Science, GPA: 3.98 / 4.0
Mar 2019 B.S. in Computer Science (minor in Mathematics), GPA: 3.94 / 4.0
Advisor: Kevin Jamieson

Research Experience

Sep 2021 - Present Wisconsin Institute of Discovery
Research Assistant, advised by Professor Robert D. Nowak

- Data-efficient learning and optimization in deep learning and/or with statistical guarantees.

Mar 2019 - Mar 2021 Washington AI Lab
Research Assistant, advised by Professor Kevin Jamieson

- Working on both theoretical and empirical perspectives of active learning algorithms
- Proposed novel learning to actively learn procedure for training optimal policy while obtaining same level of robustness as theoretically justified ones

June 2017 - June 2019 Robotics and State Estimation Lab
Research Assistant, advised by Tanner Schmidt and Professor Dieter Fox

- Built multi-tasking deep learning structures for computer vision and robotics tasks with both Back Propagation and Equilibrium Propagation (for energy based models)

June 2018 - Sep 2018 SAMPL Group
Research Assistant, advised by Professor Zachery Tatlock

- Worked on the Relay project (part of TVM, a deep learning library). Designing better intermediate tensor representation for the compiler

Industry Experience

May 2021 - Aug 2021 Google, Ads pCTR Team
Software Engineering Intern

- Research on improving Ad click prediction training efficiency by subselecting useful data points based on information theoretic model uncertainty.
- Conducted large-scale algorithmic learning experiments on hundreds of billions data points

June 2020 - Google, Geo 3D Reconstruction Team

Sep 2020 *Software Engineering Intern*

- Researched on and implemented multi-view texturing algorithms for Google Map's 3D reconstructed models at scale

June 2019 - Facebook, ML Data Platform Team

Sep 2019 *Software Engineering Intern*

- Prototyped distributed systems for large scale Machine Learning services of data pre-processing
- Constantly communicated with and employed services from five different teams

Preprint

- *Learning to Actively Learn: A Robust Approach*

Jifan Zhang, Lalit Jain, Kevin Jamieson.

arXiv:2010.15382. October 2020.

Refereed Publication

- *GALAXY: Graph-based Active Learning at the Extreme*

Jifan Zhang, Julian Katz-Samuels, Robert Nowak.

Proceedings of the 39th International Conference on Machine Learning (ICML 2022).

- *Improved Algorithms for Agnostic Pool-based Active Classification*

Julian Katz-Samuels, **Jifan Zhang**, Lalit Jain, Kevin Jamieson.

Proceedings of the 38th International Conference on Machine Learning (ICML 2021).

Teaching

Jan 2017 - University of Washington, Allen School of Computer Science and Engineering

Mar 2021 *Teaching Assistant*

- Graduate Courses: CSE 599G1 Deep Learning, CSE 546 Machine Learning
- Undergraduate Courses: CSE 446 Machine Learning, CSE 473(major)/415(non-major) Artificial Intelligence, CSE 341 Programming Languages
- Assist with overall course planning and development; design homework and exam problems; lead and prepare weekly sections; hold weekly office hours

Awards

- **Microsoft Endowed Scholarship: recipient**
- **ACM-ICPC (Pacific Northwest Region): 5th place**
- **William Lowell Putnam Mathematical Competition: ranked 439 as sophomore and 733 as freshman**
- **UW Honors Calculus Award: One student per year awarded by the math department**