BO ZHAO

Email: bozhao@ucsd.edu ⋄ Website: b-zhao.github.io

RESEARCH INTEREST

Deep learning theory, optimization, spatiotemporal dynamics

EDUCATION

University of California San Diego *2021 - present*
Ph.D. in Computer Science
· Advisor: Rose Yu

Georgia Institute of Technology *2019 - 2021*
M.S. Computer Science

University of Illinois at Urbana-Champaign *2016 - 2019*
B.S. Computer Science (with highest honors)
B.S. Physics (cum laude and departmental highest distinction)

PUBLICATIONS

Conference & Journal

[1] **Bo Zhao**, Nima Dehmamy, Robin Walters, Rose Yu. Symmetry Teleportation for Accelerated Optimization. *Advances in Neural Information Processing Systems (NeurIPS)*, 2022.

[2] Peter Eckmann, Kunyang Sun, **Bo Zhao**, Mudong Feng, Michael Gilson, Rose Yu. LIMO: Latent Inceptionism for Targeted Molecule Generation. *International Conference on Machine Learning (ICML)*, 2022.

[3] James Fox, **Bo Zhao**, Beatriz Gonzalez Del Rio, Sivasankaran Rajamanickam, Rampi Ramprasad, Le Song. Concentric Spherical Neural Network for 3D Representation Learning. *International Joint Conference on Neural Networks (IJCNN)*, 2022.

[4] Gregory A. Fields, Samuel F. Cieszynski, **Bo Zhao**, Kidan A. Tadesse, Mohammed A. Sheikh, Eugene V. Colla, and M. B. Weissman. Multiple Aging Mechanisms in Ferroelectric Deuterated Potassium Dihydrogen Phosphate. *Journal of Applied Physics* 125, 194102, 2019.

Preprint

[1] **Bo Zhao***, Iordan Ganev*, Robin Walters, Rose Yu, Nima Dehmamy. (*equal contribution) Symmetries, Flat Minima, and the Conserved Quantities of Gradient Flow. *arXiv preprint arXiv:2210.17216,* 2022.

EXPERIENCE

IBM *June - September 2022*
AI Intern (Mentor: Nima Dehmamy) Cambridge, MA
· Studied parameter space symmetry and conserved quantities in gradient flow.

TEACHING

Teaching Assistant, CS 4641 Machine Learning, Georgia Tech Fall 2020
Lead Course Assistant, CS 225 Data Structures, UIUC Fall 2017 - Spring 2019

SKILLS

Programming Python (PyTorch), C++/C, MATLAB