Zihao Chen

zchen959@seas.upenn.edu | zihaoiz.com | ZihaoChen490 | zihao-chen-804647140

Education

PhD Computer Science, University of Pennsylvania, Philadelphia, PA — *2025 - 2027*

Advisor: Prof. Eva Dyer

Large language model, deep generative models, diffusion models, optimal transport, time series forecasting.

PhD Machine Learning, Georgia Tech, Atlanta, GA — *2023 - 2025*

4.0/4.0 GPA *Advisor:* Prof. Eva Dyer

Master of Biomedical Engineering, Fudan University, Shanghai, China — *2019 - 2022*

3.7/4.0 GPA Advised by Chunhe Li

BS Biology, Wuhan University, Wuhan, China — *2015 - 2019*

3.8/4.0 GPA Advised by Min Wu

Selected Papers

Chen Z, Andre A, Ma W, Knight IJ, Shuvaev AS, Dyer E. "PRISM: A Hierarchical Multiscale Approach for Time Series Forecasting." *Resubmit to ICML*, 2026.

Chen Z, Andre A, Ma W, Knight IJ, Azabou M, Shuvaev AS, Dyer E,. "Mixtures of Latent Diffusion Processes for Time Series Forecasting and Disentanglement." *Resubmit*, 2026.

Chen Z, Lin C, Liu R, Xiao J, Dyer E. "Your contrastive learning problem is secretly a distribution alignment problem." *Advances in Neural Information Processing Systems (NeurIPS)*, 2024. (Acceptance Rate 25.8%).

Chen Z* , Lu J* , Zhao X M, Yu H, Li C. "Energy landscape reveals the underlying mechanism of cancer-adipose conversion with gene network models." *Advanced Science*, 11(41): 2404854 (2024). (Impact Factor 15.1)

Arora V, Lachi D, Mahato SP, Azabou M, **Chen Z**, Dyer E. "Exploiting All Laplacian Eigenvectors for Node Classification with Graph Transformers." *Advances in Neural Information Processing Systems (NeurIPS)*, 2025.

Knight IJ, Arora V, Azabou M, **Chen Z**, Dyer E. "Unified pretraining on mixed optophysiology and electrophysiology data across brain regions." *NeurIPS 2025 Workshop on Foundation Models for the Brain and Body*, 2025.

Arora V, Lachi D, Mahato SP, Azabou M, **Chen Z**, Dyer E. "Broaden the Spectrum: Using Higher-Order Laplacian Eigenvectors for Node Classification in Graph Transformers." *Submitted to Advances in Neural Information Processing Systems (NeurIPS)*, 2025.

Yuan Y* , **Chen Z*** , Liu J, Chou C, Dai C, Jiang X. "Towards highly flexible inter-user calibration of myoelectric control models with user-defined hand gestures." *IEEE Transactions on Medical Robotics and Bionics*, 2024.

Pillai M* , **Chen Z*** , Jolly MK, Li C. "Quantitative landscapes reveal trajectories of cell-state transitions associated with drug resistance in melanoma." *iScience*, 2022, 105499.

Chen Z, Li C. "Quantifying the Landscape and Transition Paths for Proliferation–Quiescence Fate Decisions." *Journal of Clinical Medicine*, 9(8): 2582 (2020).

***** denotes first author or first co-authors

Work Experience

Research Scientist Intern | **Google** | *Cambridge Boston, MA* — *May 2026*

Research Assistant | **University of Pennsylvania** | *Philadelphia, PA* — *2025 – Present*

Research Assistant | **Georgia Institute of Technology** | *Atlanta, GA* — *2023 – 2025*

Research Assistant | **Fudan University** | *Shanghai, China* — *2022 – 2023*

Quantitative Research Intern | **Asymmetric Technology** | *Shanghai, China* — *Jan 2022 – May 2022*

Machine Learning Engineer Intern | **Tencent** | *Shenzhen, China* — *May 2021 – Sep 2021*