

ZHIKAI WU

Email: zhikaiwu@seas.upenn.edu | Homepage: <https://sizhuang.org> | Github: <https://github.com/zwu88>

RESEARCH INTEREST

AI for Science: , Scientific Machine Learning: , Operator Learning: , Physics-informed Machine Learning:

EDUCATION

Yale University

Ph.D. in Computer Science

New Haven, CT

Aug. 2024 – Present

- Advisor: Dr. David van Dijk
- Research Focus: Machine Learning for Computational Biology

University of Michigan, Ann Arbor

Ann Arbor, MI

Bachelor of Science in Honors Mathematics (Minor in Computer Science)

Sep. 2019 – May 2023

- Graduated with Highest Distinction
- GPA: 4.0 / 4.0

PUBLICATIONS

GeoFunFlow: Geometric Function Flow Matching for Inverse Operator Learning over Complex Geometries

S. Wang*, Z. Wu*, D. van Dijk, L. Lu (In Review)

TANTE: Time-Adaptive Operator Learning via Neural Taylor Expansion

Z. Wu, S. Wang, S. Zhang, S. He, et al. (In Review)

Intelligence at the Edge of Chaos

S. Zhang*, A. Patel*, S. Rizvi, N. Liu, S. He, et al. (ICLR 2025 (Poster))

COAST: Intelligent Time-Adaptive Neural Operators

Z. Wu, S. Zhang, S. He, et al. (AI4MATH Workshop at ICML 2025 (Poster))

TANTE: Time-Adaptive Operator Learning via Neural Taylor Expansion

Z. Wu, S. Wang, S. Zhang, S. He, et al. (In Review)

CaLMFlow: Flow Matching using Causal Language Models

S. He*, D. Levine*, et al. (arXiv)

Operator Learning Meets Numerical Analysis: Improving Neural Networks through Iterative Methods

E. Zappala, D. Levine, S. He, et al. (arXiv)

* denotes equal contribution

HONORS & AWARDS

- Fan Family Fellowship, Yale University (2025)
- Outstanding Achievement in Mathematics Award, University of Michigan, Ann Arbor (2023)
- James B. Angell Scholar, University of Michigan, Ann Arbor (2023)
- University Honors, University of Michigan, Ann Arbor (2022, 2023)

SERVICES

Conference Reviewer

- International Conference on Learning Representations (ICLR)
- AI4MATH Workshop at ICML 2025