

ZHIKAI WU

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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

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

Ann Arbor, MI

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