Ziheng Zhang

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Education

The Ohio State University

B.S. in Computer & Information Science and Mathematics (Expected Graduation: May 2025)

Core Courses

- Mathematics: Discrete Mathematics, Combinatorics, Real Analysis, Abstract Algebra, Differential Equations, Calculus, Linear Algebra, Probability and Statistics
- Computer Science: Artificial Intelligence, Operating Systems, Machine Learning ,Software Development, Data Structures and Algorithms, Computer Networking, Principles of Programming Languages

Research Interest

Fields: AI4Science, Explainable and Interpretable AI, Multimodal Learning and Reasoning

Publications

Finer-CAM: Spotting the Difference Reveals Finer Details for Visual Explanation

Ziheng Zhang*, Jianyang Gu*, Arpita Chowdhury, Zheda Mai, David Carlyn, Tanya Berger-Wolf, Yu Su, Wei-Lun Chao

CVPR 2025

Prompt-CAM: A Simpler Interpretable Transformer for Fine-Grained Analysis

Arpita Chowdhury, Dipanjyoti Paul, Zheda Mai, Jianyang Gu, **Ziheng Zhang**, Kazi Sajeed Mehrab, Elizabeth G. Campolongo, Daniel Rubenstein, Charles V. Stewart, Anuj Karpatne, Tanya Berger-Wolf, Yu Su, Wei-Lun Chao

CVPR 2025

Building Machine Learning Challenges for Anomaly Detection in Science

Elizabeth G. Campolongo, Yuan-Tang Chou, Ekaterina Govorkova, Wahid Bhimji, Wei-Lun Chao, Chris Harris, Shih-Chieh Hsu, Hilmar Lapp, Mark S. Neubauer, Josephine Namayanja, Aneesh Subramanian, Philip Harris, Advaith Anand, David E. Carlyn, Subhankar Ghosh, Christopher Lawrence, Eric Moreno, Ryan Raikman, Jiaman Wu, *Ziheng Zhang*

arxiv

Research Experience

Research Assistant, Advisor: Prof. Wei-lun (Harry) Chao

Jun, 2024 – Present

Machine Learning as a Basis Lab, Department of Computer Science and Engineering

Imageomics, The Ohio State University, OH, USA

Harnessing the Data Revolution (HDR) Anomaly ML Challenge

• Served as a student organizer, developed the competition codebase, and provided example training scripts.

Teaching Experience

The Ohio State University, OH, USA

Teaching Assistant

Sep, 2023 - May, 2025

Foundations I: Discrete Structures (CSE 2321)

Assisted in teaching a total of 7 sections, held office hours, and contributed to exam design.

Skills

Programming Languages: Python, C/C++, Java, SQL, JavaScript, HTML/CSS

Tools and Frameworks: PyTorch, Git, LaTeX, Markdown, Docker