

Haoyu Zhang

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Education

- M.S.** **Southwest University**, Operations Research – Chongqing Sept 2025 – present
• (Ranked 3/65): Optimization, Variational Analysis, etc.
- B.S.** **Donghua University**, Mathematics and Applied Mathematics – Shanghai Sept 2021 – June 2025
• (GPA: 4.0/5.0): Mathematical Modeling, Discrete Mathematics, Data Structures and Algorithms, etc.

Knowledge and Skills

Expertise: Distributed Optimization, Stochastic Optimization, Primal-Dual Algorithms

Languages: Mandarin (Native), English (CET-6), Japanese (JLPT-N2)

Programming: Python, MATLAB

Work Experience

- Math AI Training (AIGC) Intern**, Appen Ltd. – Chongqing, China Jan 2025 – Apr 2025
• Contributed to the development of mathematical vertical capabilities for Large Language Models (LLMs) to enhance their reasoning performance in specialized domains.
• Engineered complex reasoning solution chains and step-by-step logical paths using LaTeX and Markdown, facilitating the batch production of high-quality training data.

Research Experience

- Multi-Species Ecological Competition & Regression Analysis System** Dec 2022 – May 2023
Modeler of research group
• Developed a regression analysis system to simulate complex interspecies competitive relationships based on the Lotka-Volterra model.
- Fluid Dynamics & Thermal Coupling Modeling for Greenhouse Environments** Nov 2023 – Apr 2024
Leader of research group
• Constructed a coupling model for greenhouse gas concentrations and temperature distributions utilizing Navier-Stokes and heat conduction equations.

Selected Honors & Awards

- Academic Scholarship**, Southwest University 2025
- Tianji Annual Scholarship**, Donghua University (Top-tier annual honor) 2024
- Honorable Mention**, Mathematical Contest in Modeling (MCM) 2023
- Shanghai Municipal Prize**, Contemporary Undergraduate Mathematical Contest in Modeling (CUMCM) 2023
- Third Prize**, Asia-Pacific Mathematical Contest in Modeling (APMCM) 2023
- University-level Scholarship (Twice)**, Donghua University 2022 & 2023