Yutong Zhou

Education

University of Michigan   **Ann Arbor**
Bachelor of Science in Computer Science and Mathematics   *Sept 2022-May 2026*

- Total GPA: 4.00/4.00
- Awards/Honors: M.S. Keeler Department of Mathematics Merit Scholarships, James B. Angell Scholar, University Honor.

Coursework: Data Structure & Algorithms (A+), Linear Algebra (A+), Numerical Analysis (A), Mathematical Analysis (A+), Differential Equation (A+), Probability (A+), Abstract Algebra(A), Computer Organization (A), Computer Theory (A+), Machine Learning(A+), Independent Study(A), Algorithm Robotics(A).

Southwest Jiaotong University   **Chengdu, Sichuan, China**
Bachelor of science in Engineering Mechanics (Training program of Top class in Mechanics)   *Sept 2020-July 2022*

- Total GPA: 3.82/4.00   Major GPA: 3.91/4.00
- Awards/Honors: Rank 1st in School of Mechanics and Aerospace Engineering (Major Course Ranking).
- Transferred to University of Michigan.

Experience

ROAHM LAB   **Ann Arbor**
Undergraduate Researcher   *Sept 2024 - present*

- The work is currently under anonymous review …

University of Michigan, Math Lab   **Ann Arbor**
Math Tutor & Manager   *Jan 2023-Oct 2024*

- Holding walk-in tutoring for mathematic courses range from precalculus, calculus, advanced calculus, linear algebra, differential equation to probability. Instructed 300+ undergraduates in University of Michigan.

Centers for High Performance Materials and Manufacturing   **Chengdu, Sichuan, China**
Undergraduate Researcher   *July 2022*

- Conducted standard tension test for carbon-reinforced heterogeneous aluminum.
- Compared properties of aluminum materials reinforced by different elements by analyzing mechanical tensile compression stress strain curves.
- Predicted carbon-reinforced heterogeneous aluminum's macroscopic mechanical behavior through micro fracture surface analysis.

Projects

Convex Optimization Solver

- Designed Phase1-Phase2 mechanism to allow for infeasible initial guess.
- Designed linear and exponential pusher to push an infeasible point into the feasible domain.
- Implement Barrier Method to prevent the solution from escaping feasible domain.

Frontend Backend Instagram Clone

- Build an Instagram application using client-side dynamic pages and REST API. The application runs on the browser.
- Include features like login, logout, creating, updating, and deleting users, posts, comments, and likes.
- Implement an SQLite database.

Technical Skills

Programming languages/Tools: C, C++, Git, Python, MATLAB, PyTorch, JavaScript, AJAX, HTML, REST APIs, CSS, Latex.

Languages: Chinese, English, Japanese