

Whitaker Thompson

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EDUCATION

University of Michigan

B.S. in Computer Science and Mathematics

Ann Arbor, MI

May 2025

- GPA: 3.94 / 4.0
- Coursework: Advanced Operating Systems, Computer Organization, Advanced Algorithms, Algorithms for Machine Learning and Data Science, Graduate Combinatorics and Graph Theory

PROJECT EXPERIENCE

University of Michigan

Thread Library (C++)

Ann Arbor, MI

February 2024

- Designed, implemented, and tested an efficient thread library that provided support for both uniprocessor and multiprocessor systems

Multithreaded Network File Server (C++)

April 2024

- Created a highly-optimized file server designed to process a large number of concurrent requests that utilized socket programming to successfully receive, process, and confirm requests sent over a network

Virtual Memory Manager (C++)

March 2024

- Implemented a program that simulated the management of multiple programs' address spaces and sought to minimize the number of high-cost disk operations to provide an efficient abstraction to the user

WORK EXPERIENCE

Computer Science Researcher

Prof. Euiwoong Lee, University of Michigan

Ann Arbor, MI

June 2024 - Present

- Worked closely with a professor towards the development of the first constant-factor approximation algorithm for a central problem in the theory of hardness of approximation
- Conducted in-depth literature reviews and learned various advanced mathematical analysis techniques to build on state-of-the-art research done by leaders in the field of approximation algorithms

Mathematics and Computer Science Tutor

Engineering Center for Academic Success - University of Michigan

Ann Arbor, MI

August 2023 - Present

- Organized and facilitated tutoring sessions with students to provide them with instruction on course material and study habits to transform them into independent, successful students
- Provided insight, instruction, and explanation on complex topics in areas such as computer hardware, theory of computation, data structures and algorithms, and discrete mathematics

Mathematics Academic Facilitator

M-STEM Summer Academy

Ann Arbor, MI

July 2024 - August 2024

- Assisted a graduate student instructor in teaching a summer mathematics course designed to prepare students for advanced calculus courses in the fall
- Organized and taught two reviews sessions each week and held daily office hours to aid students in their homework and understanding

SKILLS

Computer: C/C++, R, Python

Languages: Proficient in Spanish

ACTIVITIES

Math Club

August 2021 - Present

Intramural Ice Hockey

September 2022 - Present