






Pranav Varshney

 [Pranav Varshney](#)  [Github](#)  [Email](#)  [US Citizen](#)  [\(636\) 675 0940](#)

EDUCATION

University of Michigan College of Engineering

Ann Arbor, MI

Bachelors of Science in Computer Science

May. 2026

Courses: Data Structures & Algorithms, Computer Theory, Computer Pragmatics, Discrete Math, Python, Computer Organization, Databases, Web Systems

University of Michigan College of LSA

Ann Arbor, MI

Bachelors of Science in Statistics

May. 2026

Courses: Computational Statistics, Stats & Data Analysis, Linear Algebra, Calculus I-III, Probability Theory

TECHNICAL EXPERIENCE

United Wholesale Mortgage

Pontiac, MI

Incoming Software Engineer Intern

Starting May. 2024

The Michigan Daily

Ann Arbor, MI

Web Developer

Oct. 2023 – Apr. 2024

- Spearheading the error handling and debugging process of the team, fixing 50+ website errors, and counting
- Reducing website vulnerabilities by 40%, maintaining the integrity of the site through user authentication
- Increasing website efficiency by 44%, and improved user engagement by 15% with the help of colleagues

Ratna Global Technologies

Newark, CA

Software Engineer Intern

Jun. 2023 – Sept. 2023

- Spearheaded construction of a website used to manage a vehicle rental service with 50+ locations
- Integrated an AI chatbot linked to OpenAI's public API as a resource for improving user experience
- Increased website efficiency by 60%, and improved user engagement by 33% with the help of colleagues

RESEARCH EXPERIENCE

The Big-DIG Research Lab

Ann Arbor, MI

Undergraduate Researcher Assistant

Apr. 2023 – Jun. 2023

- Developed a Python sorting algorithm that sorts school ranks and location from 750+ schools automatically
- Launched a PostgreSQL database to manage data manipulation, reducing time taken to access data by 2+ minutes
- Created a 99.5% statistical significance test to find relevance through exporting and analyzing data in R Studio

London Business School

Remote

Undergraduate Researcher Assistant

Jan. 2023 – Apr. 2023

- Leveraged natural language processing to extract data from 2,500+ contracts using the NLTK library in Python
- Constructed a PostgreSQL database to manage data manipulation, reducing time taken to access data by 25%
- Determined 95% significant difference in structure of internal and external contracts through Microsoft Excel

PROJECT EXPERIENCE

C++ Standard Library: Leveraged C++17 features to proficiently implement and optimize various standard libraries, enhancing code efficiency and maintainability while staying up-to-date with the latest language advancements.

TSP: Implemented a branch and bound algorithm to speed up the brute force solution for the famous TSP, implementing a custom arbitrary insertion heuristic to improve the time complexity by a more accurate upper-bound calculation.

SQL Imitation: Mimicked simple SQL functionality in C++, customizing C++17 functionality via shell scripting, using this custom SQL functionality to improve previous research projects.

PROGRAMMING SKILLS

Languages: C/C++, Python, R, HTML/CSS, Javascript, PostgreSQL, Go

Technologies: Unix, Git, nano, nvim, MacOS, VScode, Xcode, Zed

Libraries and Tools: Pytorch, Tensor, Scikit-learn, Pandas, numpy