






# Pranav Varshney

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## EDUCATION

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### University of Michigan

Ann Arbor, MI

*Bachelors of Science in Computer Science & Statistics*

*May. 2026*

**CS Courses:** Architecture, Theory, Databases, Web Systems, Data Structures, Algorithms, Linux, Python

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

**Upcoming:** Human Centered Software, Operating Systems, Operating System Projects, Theoretical Statistics

**Extra-curriculars:** Michigan Hackers, Michigan Research and Discovery Scholars, Michigan Arya Samaj

## EXPERIENCE

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### United Wholesale Mortgage

Pontiac, MI

*Software Engineer Intern*

*May. 2024 - Current*

- Working with Applications Development and Data Engineering teams, writing backend of a code base change **datamart** and linking it to GUI; will write prediction models with Machine Learning team to forecast risks

### igniteXL Ventures

Remote

*Deal Sourcing Extern*

*Jun. 2024 - Current*

- Incoming AI-Powered Venture Capitalist Deal Sourcing Extern

### Outlier

Remote

*Software Engineer - AI Consultant*

*May. 2024 - Current*

- Pioneering user accessibility for LLMs, incorporating speech to speech functionality for visually impaired users

### The Michigan Daily

Ann Arbor, MI

*Web Developer*

*Oct. 2023 - Apr. 2024*

- Lead error handling and debugging processes, fixing **75+** website errors to make user experience more enjoyable
- Cut down website vulnerabilities by **40%** with team, maintaining site's integrity through user authentication
- Increased website efficiency by **44%** reducing redirects and http requests, raising engagement length by **10%**

### Ratna Global Technologies

Newark, CA

*Software Engineer Intern*

*Jun. 2023 - Sept. 2023*

- Spearheaded construction of a **Node & React** website used to manage a vehicle rental service with **50+** locations
- Built a modifiable chatbot using **OpenAI's API**, automating customer service requests based on client data

### The Big-DIG Research Lab

Ann Arbor, MI

*Undergraduate Researcher Assistant*

*Apr. 2023 - Jun. 2023*

- Engineered a custom **Python sorting system** for school ranks and locations from 750+ schools automatically, eliminating manual labour and guiding lab to conclude data analysis stage **2 months** ahead of schedule

### London Business School

Remote

*Undergraduate Researcher Assistant*

*Jan. 2023 - Apr. 2023*

- Leveraged natural language processing using the **NLTK** library in **python** to extract and input data from **2500+** contracts into a self constructed **SQL** database, optimizing data entry, extraction, and accessing by **25%**
- Determined **90%** significant difference in structure of internal and external contracts through **tableau** and **R**

## PROJECTS

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**C++ Standard Library:** Leveraged C++17 features to implement and optimize data structures in standard library, enhancing code efficiency and maintainability while staying up-to-date with latest language advancements.

**SQL Imitation:** Mimicked simple SQL functionality in C++, customizing C++17 functionality via shell scripting. Harnessed custom SQL functionality to restructure previous research projects, boosting runtime efficiency by 15%

## PROGRAMMING SKILLS

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**Languages:** C/C++, C#, Python, Java, R/RStudio, HTML/CSS, Javascript, SQL, LaTeX, Bash, Assembly

**Technologies:** Linux, Git, nano, nvim, MacOS, Windows, Visual Studio, VScode, Xcode, Zed, JIRA, Docker, Tableau

**Libraries and Tools:** CMake, Numpy, Pandas, Matplotlib, Jupyter Notebook, NLTK, JSON, Pytorch, Tensor