Pranav Varshney

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EDUCATION

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

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   *May. 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 **tableu** and **R**

PROJECTS

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

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