Pranav Varshney

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EDUCATION

University of Michigan   May. 2026
B.S, Computer Science   Ann Arbor, MI
Courses: Data Structures, Algorithms, Databases, Applied Data Science*, OS*, Networks*, Deep Learning I*
Activities: Python Teaching Aide, Research & Discovery Scholar, Michigan Hackers, Poker Club, Pickle ball

PROGRAMMING SKILLS

Languages: C++, C, C#, Python, R, HTML/CSS, Javascript, SQL, LaTeX
Technologies: Git, Linux, JIRA, Docker, MySQL, MongoDB, PostgreSQL, Flask, React.js, Astro.js, .NET

TECHNICAL EXPERIENCE

Software Engineer Intern   May. 2024 - Aug. 2024
United Wholesale Mortgage   Pontiac, MI
- Piloted a change insights data lake using C# & SQL to analyze data, identifying trends to improve code quality
- Reengineered databases to reduce data redundancy, pushing Google Cloud migration on an accelerated timeline
- Launched a dashboard to monitor GCP costs & usage, flagging misuse to maintain proper data handling etiquette
- Initialized a decision tree model in Python to classify loans as success or failures, saving over $20,000 in Q3 costs

Data Science Intern   Jan. 2024 - May. 2024
Outlier   Remote
- Maintained data pipelines to support user analytics, optimizing data pipelines to reducing their runtime by 30%
- Developed Python visual aids to analyze search trends & enhance search algorithm using the PageRank method
- Documented data models & ETL processes for investors, clarifying technical details for new business strategies

Web Developer   Oct. 2023 – Apr. 2024
The Michigan Daily   Ann Arbor, MI
- Lead error handling & debugging processes, fixing 75+ website errors to make user experience more enjoyable
- Increased website efficiency by 44% reducing redirects & http requests thus raising engagement length by 10%
- Provided a framework for catching and fixing errors in the future, guiding new team members during on boarding

Software Engineer Intern   Jun. 2023 – Sept. 2023
Ratna Global Technologies   Newark, CA
- Spearheaded construction of a React & Node website used to manage a vehicle rental service with 5+ locations
- Implemented a custom OpenAI-powered chatbot to automate customer support requests, saving 5–10 hours weekly
- Built a PostgreSQL database schema to store user data, reducing duplication & improving retrieval time by 20%

Undergraduate Research Assistant   Apr. 2023 – Jun. 2023
The Big-DIG Research Lab   Ann Arbor, MI
- Employed a custom school sorting function in Python to sort 750+ schools, guiding lab to conclude in 2 months
- Demonstrated a 99.5% statistical significance test through supplemental simulations & visual aids in Python & R

Undergraduate Research Assistant   Jan. 2023 – Apr. 2023
London Business School   Remote
- Leveraged Python to pipe data from 500 contracts into a mimicked SQL database; optimized extraction by 5%
- Determined 90% confidence in differences between internal & external contracts through R statistical analysis

PROJECT EXPERIENCE

SD-WAN Analytics (2024 Cisco HackAIthon): Designed a dashboard using AI-driven solutions for SD-WAN anomaly detection, root cause analysis & predictive remediation using SLA metrics, device health, & application insights.

ChessNav: Innovated a chess evaluation tool in Python with 88% accuracy in comparison to top engines for 2024 Candidates tournament. Integrated Leila & Stockfish to run parallel simulations for World Chess Championship analysis

GlassNav: Applying object oriented C++ & Micropython to develop custom smart glasses with image, video & audio capturing features & an integrated AI system to provide responses about the day based on media recorded