

Pranav Varshney

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Education

University of Michigan *Ann Arbor, MI*

2022 – 2025

Bachelors of Science, Computer Science

- **Current Courses:** Programming & Data Structures, Discrete Mathematics, Python Programming for Science
- **Previous Courses:** Elementary Programming Concepts, Multivariable & Vector Calculus (transfer)

Professional Experience

Ratna Global Technologies

Jun 2023 - Current

Software Engineer Intern

Remote

- Spearheading construction of a Node & React website used to manage a vehicle rental service with 50+ locations
- Overseeing all aspects of project, from development to deployment, adhering to proper agile development
- Integrating an AI chatbot linked to OpenAI's public API as a resource for improved user experience
- Increased website efficiency by 60%, and improved user engagement by 33%

Technical Experience

The Big-DIG Research Lab

Apr 2023 - Jun 2023

Undergraduate Researcher

Ann Arbor, MI

- Developing a Python sorting algorithm that sorts school ranks and location from 750+ schools automatically
- Launched a MySQL database to manage data manipulation, reducing time taken to access data by 2+ minutes
- Guided lab to conclude 2 months ahead of schedule, adhering to proper agile development methodology
- Created a 99.5% statistical significance test to find relevance through exporting and analyzing data in R Studio

London School of Business

Jan 2022 - Apr 2023

Undergraduate Researcher

Remote

- Leveraged natural language processing to extract data from 2,500+ contracts using the NLTK library in Python
- Constructed a MySQL 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
- Presented findings at annual Michigan Research and Discovery Scholars symposium

Project Experience

News Feed || React, Node, MySQL, NYT API, NLTK

Jul 2023 - Current

- Structured New York Times' API to scrape through top 100 posts on any chosen topic of user's choice
- Training sentiment analysis bot to categorize news into different groups based on diction in article title
- Developing a search engine with a lookup functionality resulting in titles and descriptions for recent NYT posts
- Storing data for over 2,600 posts in SQL with goal to display data around 75% faster than NYT

Elevators Game || Python, C++

Feb 2023 - Mar 2023

- Developed a C++ elevator game with 10 floors and 3 elevators along with people spawning on random floors
- Prompts user to input a move or instruct an artificial intelligence play game instead, lasting 50 total moves
- Trained artificial intelligence with 250 practice games to boast a 100% success rate in finishing the game.

Email Deleting Bot || Python, Google API, NLTK

Nov 2023 - Feb 2023

- Detected and filtered frequent words / phrases from unread emails through NLP processing and analysis
- Cross tested filtered words / phrases with unread emails and concluded a 98% detection accuracy
- Developed a robot that deletes emails containing frequent words / phrases for the past 10 days

Skills

- **Focus:** Web Development, Data Analysis, Artificial Intelligence, Machine Learning
- **Languages:** R, RStudio, C++, Python, HTML, CSS, JavaScript
- **Databases:** MySQL, PostgreSQL