Pranav Varshney

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EDUCATION

University of Michigan *Ann Arbor, MI* *2022 – 2025*
Intended Major, Computer Science

- Coursework:Web Design for Everybody, Python Programming, Data Structures, Discrete Math, Calculus 3
- Activities: Michigan Research and Discovery Scholars, Spark Electric Racing, Michigan Economics Society

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
- Enhanced user interface and graphic design to boost user time spent on website from ~5 minutes to 10+ minutes
- 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%

The Big-DIG Research Lab **Apr 2023 - Current**
Undergraduate Researcher Ann Arbor, MI

- Developing a Python sorting algorithm that sorts school ranks and location from 750+ schools automatically
- Launched a mongoDB database to manage data manipulation, reducing time taken to access data by 2+ minutes
- Guiding lab to conclude 2 months ahead of schedule, finishing in June instead of August
- Creating 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 SQL 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

PROJECTS

News Feed || React, Node, MySQL, NYT API, NLTK, TensorFlow **Jun 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

NBA Data Analysis || Python, Jupyter, Scikit-Learn, TensorFlow **Mar 2023 - Jun 2023**

- Parsed and scraped player statistics from past 10 years and over 820 games through the official NBA website
- Devised a multiple linear regression model that analyzes parsed player statistics to predict an NBA MVP
- Compared training set results to test set results, determining an 88% success rate

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, TensorFlow **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

- Languages: MatLab, R, RStudio, C++, Python, Jupyter, MySQL, HTML, CSS, JavaScript (Node, React)
- Focus: Full Stack Development, Artificial Intelligence, Machine Learning