SHAN MALIK

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Education

Rutgers University-New Brunswick **Expected Graduation**: Jan 2025
Bachelors in Computer Science **GPA**: 3.3/4.0
Relevant Coursework: Data Structures, Software Methodology, Introduction to Data Science, Data Science for Data Management, Computer Architecture, Linear Algebra, Discrete Mathematics 1&2, General Physics, Calculus 1&2, Numerical Computing Analysis

Technical Skills

Programming Languages: Java, Python, C, C#, HTML/CSS, JavaScript, SQL
Technologies/Frameworks: JavaFX, ReactJS, Node.js, Android Studio, Git, GitHub, MySQL, JUnit, Linux, Pandas, Matplotlib

Work Experience

Software Engineer Intern at **Clocky** Jan 2024 - Present

- Collaborated on diverse projects, including web scraping initiatives and contributions to the development of embedded software for Clocky's latest hardware version.
- Engaged in the development of a Data Flow Diagram and use cases for the embedded software of company products.
- Participated in innovative projects, including speech visualization using Python.

Project Experience

Donut Store Application | Java, JavaFX, System Testing, Agile Methodology, Android Studio

- Built two versions of a donut store application, and created the backend in Java for both versions. One version utilized JavaFX and Scene Builder for the front end, while the other utilized Android Studio.
- Implemented a menu system with five sections: a main menu for navigation, a donut menu for ordering with a running total, a coffee menu for coffee orders, a basket menu for viewing and editing order contents, and a store orders menu to place, manage, and export orders to an external file.
- Collaborated within a group, adhering to predefined coding standards and design requirements, and conducted system testing to ensure accurate outcomes.

Portfolio Website http://shanportfolio.tech | HTML/CSS, JavaScript

- Designed and developed my portfolio website, and hosted it using GitHub Pages,
- Contains a “Home” screen, and a “Portfolio” section that showcases a few of my projects, with short descriptions and their respective GitHub repository links, an “Experience” section that details my work and class experience, an “About” section that lists my skills, and education experience and certifications, and a “Contact” section that has my email, links to social media, and a form for users to contact me through.
- Displays links to my GitHub, LinkedIn, and other social media profiles and a downloadable CV pdf.

Twitter Sentiment Analysis | Python, Pandas, Matplotlib, Data Cleaning

- Process tweets of a former presidential candidate into data frames, clean the data, and study the dates and times of his tweets around election season to determine patterns.
- Study the devices and time of tweets that the candidate and their staff would use and the time tweets were usually sent using matplotlib visuals, and conduct sentiment analysis on his tweets, identifying the most positive and negative ones by aggregating the sentiment scores of individual words within each tweet.
- Performed principal component analysis (PCA) on the Twitter data to uncover prevalent patterns, trends, and recurrent expressions within the dataset.

Text File Size Compressor | Java, Python

- Developed a text file compression program utilizing Huffman's algorithm, reduced file size on average between 40%-50%.
- Constructed and modified a binary search tree that reflected all the characters in the input file, ordered by their frequency of occurrence. Created/managed queues to form the Huffman Tree. Traversed the tree to make encoding representations.