

Winston C. Dennis-Masi

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EDUCATION

University of Essex (First Class Honors)

Colchester, UK

Bachelor of Engineering in Computer Systems Engineering;

July 2024

Relevant Coursework: Data Structures and Algorithms, Software Engineering, Object Oriented Programming, Large Scale Software and Extreme Programming

Certifications: Cisco CCNA: Introduction to Networks

PROJECTS

Headstarter Support Chatbot | *JavaScript, Next.js, AWS, Git* ([Link](#))

August 2024

- Collaborated in a team of four to design and implement a scalable architecture, contributing to both frontend interactivity and backend robustness that was hosted on AWS and deployed on Vercel.
- Engineered a custom TF-IDF vectorizer and vector store in JavaScript to enable efficient document similarity search, overcoming compatibility issues with external embedding libraries.
- Integrated Google's Gemini API for natural language processing, implementing an augmented query system to enhance chatbot responses with relevant information from a curated knowledge base.
- Collaborated in the development of a streaming response mechanism in Next.js, ensuring real-time communication between the chatbot and users while handling complex data formatting challenges.

Oro | *Python, Flask, ReactJS, PyTorch, Git* ([Link](#))

June 2024

- Developed a RESTful API using Flask in the Backend that automatically summarizes YouTube videos with a BERT language model, leveraging PyTorch for natural language processing.
- Designed and implemented a ReactJS frontend that interacts with the Flask backend, providing users with summarized content and generated flashcards.
- Integrated various APIs for video downloading and processing, ensuring seamless data flow between the backend and frontend.

Kaggle Sentiment Analysis | *Python, JavaScript, Django, SQLite, Git* ([Link](#))

May 2024

- Developing a sentiment analysis application that processes tweet data to determine sentiments (positive, negative, or neutral) and displays the analysis using interactive charts, allowing users to search for Twitter usernames.
- Implemented a feature allowing users to search for Twitter usernames, analyzing and visualizing the sentiment of their tweets through various charts for overall sentiment distribution over time.
- Integrated Google Cloud Natural Language API for accurate sentiment analysis of tweet data and Chart.js for data visualization.

Virtual Cafe | *Java, Git* ([Link](#))

Jan 2024

- Developed a client-server application simulating a café environment using Java and tcp-sockets for real-time communication.
- Implemented functionalities for customers to place orders, check order status, and manage interactions with the server.
- Created detailed documentation for setting up and running the application, ensuring ease of use and accessibility.

TECHNICAL SKILLS

Languages: Python, JavaScript, TypeScript, Java, HTML/CSS, C, SQL

library/Frameworks: Next.js, ReactJS, Django, Flask, PyTorch, PostgreSQL, SQLite

Developer Tools: Git, Github, Jira, VS Code, Google Cloud Platform, Docker