Anahad Dhaliwal

647-410-0234 | addhaliw@waterloo.ca | linkedin.com/in/anahad | github.com/anahad

Technical Skills

Languages: Python, Java, C#, C/C++, JavaScript, HTML/CSS
Frameworks: React, Node.js, Flask, MongoDB, Express.js, Typescript, Flask, Django, Pandas, NumPy
Developer Tools: GitHub, VS Code, Visual Studio, PyCharm, Eclipse, Azure, AWS, Google Cloud Platform, Docker

Experience

Software Engineer Intern July 2024 – Aug 2024
Prequel *Toronto, ON*

- Automated the transcription and vector indexing of 30 hours of meeting recordings using Python and OpenAI's Whisper API, leveraging MongoDB to manage data for optimized LLM training
- Designed and implemented a Python genetic algorithm using NumPy, gspread, and oauth2client to assign teams for 400 students based on user preferences, reducing manual team generation time by 10 hours per cohort
- Developed a Flask-based backend to help integrate Vapi's API, enabling speech-based interactions with the LLM and enhancing user engagement and accessibility.
- Analyzed LLM performance with R Scores and IQR, identifying key correlations that led to system prompt changes and improved model accuracy

Software Engineer Intern Sept. 2023 – Feb, 2024
Virtual Labs *Toronto, ON*

- Created a 3D FPS in Unity and C#, integrating Virtual Labs' SDK to facilitate secure, gasless cryptocurrency transactions for in-game skins, ensuring accessible blockchain interactions
- Executed thorough testing and debugging by implementing automated unit tests to validate SDK performance, resulting in reduction of software and user interface bugs.
- Implemented Python scripts using PostgreSQL and Pandas to streamline databasing of 500 customers for $ORB rewards, facilitating secure cryptocurrency distribution.

Projects

AI-Driven Healthcare App | *Git, MongoDB, Express.js, React, Node.js* | **Top 7 in HOSA Medical Innovation**

- Developed a full-stack healthcare recommendation app using the MERN stack to optimize hospital selection based on specialists, treatments, and user location.
- Integrated AI libraries such as scikit-learn and TensorFlow to enhance recommendation algorithms, improving decision-making accuracy and personalized user experiences
- Designed and deployed the application on AWS using Docker, ensuring scalable infrastructure to handle real-time user requests.

AI-Coaching University App | *Git, PostgreSQL, Express.js, Django, Node.js, Firebase*

- Developed an AI-powered essay feedback system using OpenAI API, providing users with detailed, real-time feedback on university application essays
- Engineered a web scraping algorithm using BeautifulSoup to collect and filter scholarships based on user-specific criteria, delivering personalized scholarship recommendations through a Flask-based API.
- Built an interactive AI mock interview system that provided users with real-time, personalized spoken feedback using Google Cloud Speech-to-Text API and Flask.

Arduino-based Thermochromic Printer | *C/C++, Python, Java, Node.js* | ***1st Place – BearHacks***

- Set up a Node.js & Express web interface for remotely controlling the printer and triggering the print/clean cycle via HTTP requests.
- Implemented Python scripts for interfacing with the Arduino via serial communication, providing real-time feedback and diagnostics for heat and motor control.

Education

University of Waterloo Waterloo, ON
Candidate for Bachelor of Applied Science in Computer Engineering *Sept. 2024 – Present*