Amaan Bilwar

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Education

University of Cincinnati **August. 2022 – April 2027**
Bachelor of Science in Computer Engineering *Cincinnati, Ohio*

Relevant Coursework

- Data Structures
- Algorithms
- Network Analysis
- Digital Design
- Linear Algebra
- Multi-Variable Calculus

Experience

Honeywell **January 2024 – April 2024**
Software Engineering Intern *Alpharetta, GA*
- Revamped framework architecture, introducing essential versioning protocols for Honeywell's multifaceted tech environment, while collaborating with interns across different time zones.
- Directed reference architecture development, smoothing new client integration amid prior maintenance gaps, and collaborated with advanced software engineers to troubleshoot and resolve emerging issues.
- Achieved experience in Docker, Spring Boot, Java, unit testing, RabbitMQ, Hazelcast, and PostgreSQL within Honeywell's intricate ecosystem, highlighting adaptability and skill acquisition.

Research Assistant **September 2023 – December 2024**
Software Developer *Cincinnati, Ohio*
- Developed a Node.js and Express web app to enhance vocal training for non-binary users, evidenced by improved pitch correction and positive user feedback.
- Accomplished real-time pitch analysis for vocal transitioning, as measured by accurate pitch detection and user progress tracking, by implementing robust backend algorithms in Node.js.
- Accomplished improved user engagement and usability, as measured by consistent user interaction and positive feedback, by contributing to front-end development and user interface design in React.

Projects

YT-SENTIMENT-ANALYSIS | *Flask, Node.js, PostgreSQL, Docker* **May 2024**
- Developed a full-stack web application for YouTube video transcription, summarization and sentiment analysis with Flask serving as REST API with React as frontend
- Implemented Selenium to create an instance of Chrome in order to interact with the correct elements of the web page.
- Implemented YouTube content processing workflows using YouTube Data and transcript API, and NLP libraries.
- Designed an intuitive and responsive user interface in React, enhancing the user experience

JollyLLB | *React, Node.js, Express, Redis, Docker* June 2024
- Developed a web application chatbot for providing legal advice, utilizing Node.js and Express for backend and React for frontend, with Pug for server-side rendering
- Integrated OpenAI for natural language processing, designed a user-friendly interface in React, and enforced prohibitions on non-legal inquiries
- Containerized the application using Docker for consistent development, testing and development environments.

Spoti-Helper | *Node.js, Express, MongoDB, React* June 2024
- Accomplished seamless playback of saved album tracks by utilizing the Spotify API, as measured by automated playlist creation and user satisfaction.
- Accomplished synchronization of user's saved tracks into a new playlist, as measured by reduction in manual playlist management time by 90%, by developing an efficient automated playlist creation tool.
- Accomplished real-time playback initiation of user's saved tracks, as measured by immediate transition from playlist creation to music playback, by integrating direct playback features into the application

Technical Skills

Languages: Java, Python, Golang, JavaScript, C/C++, HTML/CSS, SQL, R
Developer Tools: Linux, Docker, Redis, Firebase, IntelliJ, Git, Google Cloud Platform, Cloudflare
Frameworks: React, Node.js, TypeScript, Flask, FastAPI

Leadership / Extracurricular

Bearcat Motorsports **Fall 2023 – Present**
Powertrain ad Electronics *University of Cincinnati*
- Responsible for the software of the Powertrain communicating with the rest of the electric vehicle.
- Accomplished troubleshooting methods using CAN bus controllers with NewEagle Software.