Ali Hounain

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EDUCATION

University of Massachusetts Boston — Boston, MA
Bachelor of Science in Computer Science — Sep 2020 - Dec 2024

SKILLS

- **Programming Languages:** Go, Java, Python, JavaScript, TypeScript, SQL

- **Frameworks/Libraries:** React, Next.js, Three.js, Node.js, Flask, Tailwind CSS, Spring Boot

- **Tools/Cloud:** Docker, AWS, GCP, Git

WORK EXPERIENCE

Liberty Mutual Insurance — Portsmouth, NH
Software Engineering Intern — Jun 2025 - Jan 2026

- Collaborated with Kafka platform team to develop self-service tools and support infrastructure in **Go** and **Spring Boot**

- Architected a project to clean up unused Kafka connectors by designing an event-driven solution using Kafka and AWS Lambda reducing compute consumption by **24 percent**

- Refactored legacy code to enhance readability and maintainability

- Implemented new REST endpoints to our internal tools for our customers which resulted in a **23 percent** decrease in service desk tickets

PROJECTS

Emotion Recognition from Speech *Python, TensorFlow, Keras, Librosa, Scikit-Learn* sentiment-analysis

- *Developed a multimodal deep learning neural network for emotion recognition using the RAVDESS dataset*

- *Implemented a dual-input neural network with Convolutional and LSTM layers to extract acoustic and temporal features*

- *Achieved **90**% **classification accuracy** across 8 distinct emotional states using audio and metadata features*

- *Integrated additional functionalities including language detection and audio transcription*

- *Utilized advanced signal processing techniques with librosa for feature extraction, including MFCCs, chroma features, and spectral analysis*

Super BoxFinder *Next.js, React, Three.js, Typescript, Tailwind CSS* superboxfinder

- *Developed a web application that optimizes the packaging process at The UPS Store by providing the best box for a given item's dimensions, including diagonal fitting calculations*

- *Implemented a responsive front-end using React and Next.js, with 3D packing visualizations using Three.js to enhance user experience*

- *Super Boxfinder not only reduces shipping costs for customers, but also cuts down customer wait time from new hires by up to **50 percent***

AshOrBrain? *Javascript, HTML, CSS* ashOrBrain

- *Utilized the MBTA's API to fetch train arrival data to develop AshOrBrain?, a web application that greatly improves the commuting experience for commuters at JFK/UMASS (MBTA Red Line stop).*

- *Accurately calculated the track on which the Alewife train will arrive, a feature not provided by the default predictor*

- *Utilized **JavaScript, HTML, and CSS** to create an intuitive and user-friendly interface, improving the commuting experience for dozens of users*