Sean Brandon

seanbrandon333@gmail.com - https://www.linkedin.com/in/sean-p-brandon - https://sean-pb.github.io/

_____

Work Experience

- **General Motors - Software Engineer**   Aug 2024 - Present

Vision and Automation Services - Fleet Management Team
  - Collaborated with a team of 25 developers to integrate APIs from 10 automated forklift vendors, enabling seamless interoperability and centralized fleet management across GM production plants.
  - Developed and maintained full-stack features for a multi-module Maven Spring Boot application, enhancing the user interface and functionality for automated forklift mission assignment and status tracking to improve plant operator usability.
  - Designed and implemented a local-to-global coordinate transformation function, converting local x, y plant coordinates into GPS coordinates, enabling seamless geospatial mapping for tracking automated forklifts.
  - Worked on PostgreSQL database tasks, including schema design and query optimization, to support robust data management and operational insights.
- **General Motors -Software Engineer Intern**   June 2023 - Sep. 2023
  - Worked directly on the Vision and Automation Services Platform Team to engineer a dynamically sized grid utilizing Angular and TypeScript, powered by websockets developed in Java, to seamlessly receive and arrange streaming images on a browser-based application. This resulted in streamlined camera setup for launch and deploy team, enhancing operational efficiency.
  - Pioneered an image stitching solution for images in grid format from scratch, integrating OpenCV's feature detection and matching algorithms. This resulted in streamlined image consolidation which helps the operator determine where any potential defects might be and reduces the amount of compute hardware needed to analyze images.

Technical Skills

- Programming Languages
  - Java, Dart, Kotlin, Swift, Python, C++, C, TypeScript, JavaScript, Blueprint
- Technologies
  - Flutter, Android, Angular, React, Spring Boot, SQL, Git, Linux, Unreal, Godot, Maven, Azure DevOps

Education

- Oregon State University   June 2024
  - B.S. Computer Science, Summa Cum Laude

Project Experience - All viewable in my portfolio

- Mobile Application - Movie Catalog
  - Utilized Flutter and Dart to construct a mobile application allowing a user to catalog movies they've seen or wish to see in dynamic lists. Movie entries are stored using SQLite.
- Mobile Application - Duel
  - Used Godot to create multiple mobile applications published on the Google Play Store. The most popular, "Duel", has had over 600 lifetime downloads, and uses an AI controlled non-player opponent.
- Blackjack Decision App
  - Applied Agile, Test Driven Development and Microservice Architecture to develop software that determines the best decision in Blackjack depending on user input.
- Full Stack Web Application
  - Deployed an application that was written in JavaScript and CSS and used MongoDB, Express, React, Node, and a REST API to generate a single page web app allowing a user to catalog exercises (name, reps, weight etc.)