Jason Cabrera

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Education

September 2017 – June 2021 | Major GPA: 3.69
University of California, San Diego | B.S. Computer Science

January 2022 – PRESENT (Part Time) | Current GPA: 3.63
University of Texas at Austin | M.S. Computer Science - Machine Learning Specialization

Technical Skills

Advanced | Java (Spring Boot), Python, C#, JavaScript, NodeJS, ReactJS, AngularJS, SQL, Relational Databases, Express, Kubernetes, Docker, Azure DevOps, Github Actions, MongoDB, Android

Familiar | C++/C, Machine Learning, Pandas, Amazon S3

Work Experience

General Motors | Full Stack Software Engineer, DevOps, Data Analysis/ML | *July 2021 – PRESENT*

- Implemented a Python Flask microservice as a recommender system to help predict which vehicle features are enabled by which hardware components based on vehicle data. It utilizes the Jaccard similarity and benefitted the company by helping vehicle testers quickly find the faulting controller when a feature isn't working. Configured items such as OAuth2 integration, Hashicorp vault support, and Waitress support
- Created a Java Spring Boot microservice, which serves as a scheduler for important tasks such as sending email notifications to our users, updating our database data using external api to promote data consistency, and handling background tasks with a long turnaround time.
- Redesigned the application's UI router to utilize the standard Angular router in a cleaner manner. Enabled the router to no longer rely on local storage when the user requests to go to the previous page and instead rely on its own page history. Furthermore, designed the router so it would successfully open a page in a new tab (if requested) using OAuth2 state to keep track of the page the user would like to open.
- Designed and implemented the UI/API of a form which gets filled out when there is an issue with a vehicle's hardware component. The form consists of 8 different sections and gets filled out by multiple users with different roles. Added S3 storage in the API to support file attachments in the different sections. Effectively componentized the sections and implemented the API to save the form in an efficient and transactional manner.
- Designed and implemented the architecture for Blue Green Deployment on K8s, cutting release time from 15 minutes to 10 seconds.
- Created Build and Release pipelines to deploy Docker images of microservices to Kubernetes using Azure DevOps build and release pipelines. Currently migrating the team's CI/CD to Github Actions.

Projects

Kiwi Forum | Undergraduate Software Engineering Course, Project Manager and Full Stack Developer

- Led a team of ten developers in an Agile environment to develop a specialized forum web application for a software engineering course.
- Created the database schema, added navbar functionality that allowed employees to list/change the specialization by which their forum was filtered by, and created/tested RESTful API for CRUD operations on the database.
- Developed the authentication system using Express, Firebase, and cookies to allow employees and admin authenticated backend routes and pages.
- Created a secure employee invite system that emails a unique one-time-only invite link to a specified employee's email that would grant access to the admin's company forum.

Movie of the Week | Full Stack Software Development

- Developed a movie tool using React and NodeJS that allows friend groups to insert their movie suggestions and then randomly picks a movie from a user that hasn't been chosen yet.
- Created a recent updates section using merge sort by sorting on multiple date-valued fields in the database. Updates include someone recommending a new movie or a movie being marked as watched by a group.
- Implemented a user authentication system using server-side cookies and middleware functions as well as creating a react authentication component that checks if the user is authenticated before showing a page.