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Adam Vinch

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EDUCATION

James Madison University
Computer Science (B.S)

- Major GPA: 3.8/4.0

Harrisonburg, Virginia
Expected Graduation May 2025

WORK EXPERIENCE

Software Engineer Intern
Federated Auto Parts

June — August 2024
Staunton, Virginia

- Designed and built an API logging **Flutter** application, significantly reducing time needed to connect members to our API and find missed transactions due to errors in various stages of the order process.
- Implemented **Quart** endpoints into the main API to save **MongoDB** queries for stored HTTP logs. Queries are automatically generated while interacting with various filters in the **Flutter** application.
- Rewrote core B2B software, with thousands of daily users, from .NET to a cross-platform, responsive **Flutter** application.
- Effectively communicated the strengths and limitations of the **Flutter** framework to management and design team, to reach development goals in half the expected time.

Student Research Assistant
James Madison University

January — May 2024
Harrisonburg, Virginia

- Assisted Dr. Michael Stewart with his research project, significantly improving UX, by optimizing **React** code to minimize unnecessary re-renders.
- Implemented a CI/CD pipeline with **GitHub Actions** to containerize and deploy a webapp to an AWS EC2 instance on merged pull requests.

Software Engineer Intern
Federated Auto Parts

June — August 2023
Staunton, Virginia

- Developed a high-performance **Python API** serving as a middleware solution for a federated system of autonomous members allowing them to easily integrate their existing software to access warehouse data by using the **Quart** web microframework.
- Built integration test suite that allows for code-minimal, low-overhead extensibility by downloading logged requests from the admin interface and adding them to a directory that automatically generates tests.
- Increased the total size of the test suite which run in the CI pipeline by 55x through the use of **pytest** to generate integration and unit tests.

PROJECTS

Flavorful

October 2023

JavaScript, FastAPI, Postgres, Docker

- Built a full stack application designed to help people find recipes that fit their dietary restrictions, budget, and time constraints.
- Utilized **GitHub Actions** and **GCP** to save development hours by automatically publishing **Docker Image** to Artifact Registry and running the container on Cloud Run.
- Created **FastAPI** backend allowing users to save and upload recipes by storing data in a **Postgres** database hosted by Supabase.

AquaLog

July 2023

TypeScript, React, Express, Postgres

- Created a full-stack web app which provides aquarium hobbyists with a way to log various parameters of their aquariums overtime and estimates when they are properly established and safe for fish to be added.
- Built **Express API** with **TypeScript** to estimate the current stage in the nitrogen cycle, store and retrieve data from a **Postgres** database, and display it using a **React** frontend.
- Added user auth to allow access to user specific aquarium data through the use of **JWT** and **OAuth2**.

SKILLS

Languages: Dart, Python, JavaScript, TypeScript, HTML, CSS, C, Java, Ruby
Frameworks: Flutter, Flask, FastAPI, React.js, Express, Node.js
Technologies: Git, Linux, MongoDB, PostgreSQL, Docker, AWS