Elijah Crain

Software Engineer I

About Me

I am a software engineer with a passion for film photography, robotics, 3D design, 3D printing, game theory and anything else involving making things go fast or big numbers.

Contact Information

Location: Gainesville, FL

Skills & Expertise

Languages

Java, C++, Python, Typescript

Frameworks and Libraries

Spring, Spring Boot, React, Next.js, Svelte, Qt6, Flyway

Other

Docker, Kafka, Postman, Linux, Git, GitHub, CI/CD, Azure DevOps, AWS, DynamoDB, MongoDB, Microsoft SQL, Postgresql, IntelliJ, Eclipse, Dynamics 365

Professional Experience

Software Engineer I at Aflac

September 2022—Current

- Created Rest API endpoints using Spring Boot to serve micro-service / multi-layer architecture.
- Functionality included posting messages to and receiving from MSK Kafka instance, retrieval of data from DynamoDB, and passing of the data to the source system for updates.
- Dockerized services for deployment to Kubernetes cluster.
- Logging and tracing of data and endpoints using Akana and Splunk.
- Designed and created a console application that updated and added records automatically based on business requirements. The application queried data from a MS SQL server using a fetch XML query.
- Created CI/CD pipeline using GitHub and Azure DevOps to deploy and test application in test and production environments.
- Developed SQL integrations for CRM platform, tasked with debugging and fixing a failing query that was causing a daily job to fail. The implemented query completed 85% faster used 40% less memory. Metrics tracked using .NET's QueryMetrics.

Student Assistant at UF Center for Undergraduate Research

August 2019—May 2021

- Created automatic data processing in Python with NumPy and Pandas for surveys and internal statistics.
- Implemented interactive dashboard in Jupyter notebook used throughout the organization.
- Utilized Swift and Xcode to develop iPhone app for mapping and detailing posters at the UF Undergraduate research symposium for 200+ students.

Engineering Intern at Southern Environmental Inc.

May 2019—August 2019

- Performed computational fluid dynamic (CFD) simulations to increase efficiency of irrigation system for a wet electrostatic precipitator.
- Processed data in MATLAB relating particle uptake to flow distribution.
- Presented design recommendations to the head design team that had a theoretical performance gain of 62%.

Achievements

B.S. in Mechanical Engineering

University of Florida

- Capstone Project: Design and product of a modular mostly 3D printed heliostat running on ESP32.
- Designed closed-loop control system to manage over 1000+ heliostats using one server

Cloud Practitioner

AWS

TODO

Hobbies & Interests

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