

Madison Zaphiris

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SKILLS SUMMARY

Languages Java, C, Python, Javascript, Typescript, PHP

Databases Cassandra, Oracle, Postgres, MongoDB

Testing JUnit, Mockito, Wiremock

Frameworks Spring, Project Reactor, Angular

Tools Kafka, Git, Docker, Splunk

EXPERIENCE

Apple

Server Software Engineer - Apple Pay

Cary, NC

August 2022 - Present

Back-end software engineer with experience across internal infrastructure/tooling, new feature development, and hardware/software interaction:

Undisclosed Consumer-Facing Project:

- As one of first the two back-end engineers on high-priority consumer facing project, designed initial data models for customer onboarding. Using **OpenAPI codegen**, created initial mocks of external dependencies for testing.
- Reviewed iOS-facing **REST APIs**, spotted potential performance concerns. Implemented corresponding customer and internal-facing APIs using **Spring WebFlux**.
- Coordinated with iOS team to develop **server-driven UI system** from the ground-up. System allows for customer-specific customization, template caching, and localization.

Internal Configuration Management Tool:

- Within months of joining, took ownership internal configuration management system written in **Java**. As it rapidly scaled from a proof of concept to critical infrastructure, coordinated with integrating teams to triage bugs and handle performance issues.
- Using **Splunk**, quickly resolved and diagnosed high-priority outages related to increased load on the system's backing **Cassandra** datastore.
- Participated in root cause analysis meetings and coordinated with integrating teams as well as database admin team to improve data models.
- Quickly bringing manager on adjacent team up to speed, led initial design and defined requirements for the tool's new UI dashboard. Mentored/onboarded several new hires and interns working on the project.

Products API Performance Improvements:

- Aided in optimizing the data flow of high-traffic **Java** API which provides data about available products within Apple Pay when a user adds a new card.
- Improved performance by implementing a **loading cache** and integrated with our team's internal data pipeline tool which enabled us to move away from the legacy distributed database architecture to a more cloud-ready model
- Helped to implement dual-read/dual-write mode which ensured data parity between the old and new data flows before completing the switch, minimizing customer disruption.

Applet Configuration Refactor:

- Participated in years-long initiative to rewrite code based on the **Java GlobalPlatform API** which sends commands from the server to the iPhone's secure element to provision new virtual cards.
- Spearheaded effort across teams to locate missing data and migrate to new datastore.

Partner Command Executor:

- Designed/developed proof of concept for generalized internal batch task execution/workflow tool which leveraged **Kafka** and **Project Reactor** to reliably distribute large database/API tasks.

Fidelity Investments

Full Stack Software Engineer

Durham, NC

January 2021 - July 2022

- Developed internal record-keeping application which tracked audit data for millions of dollars in custom retirement funds.
- Created REST APIs in **Spring Boot** and communicated with stakeholders to design and build out front end using **Typescript** and the **Angular framework**.

Surescripts

Software Engineering Intern

Raleigh, NC

June 2020 - January 2021

- Helped to maintain and add new features to internal mock data generation tool which used **Kotlin**. Using **Spring Boot**, **Angular** and **D3.js**, developed data visualization tool which rendered a graph of organizational dependencies.

EDUCATION

University of North Carolina at Chapel Hill

Bachelors in Computer Science

Chapel Hill, NC

Graduated December 2020

Courses: Data Structures, Algorithms and Analysis, Computer Organization, Text Mining, Foundations of Programming Models of Language and Computation, Discrete Structures, Modern Web Programming, Databases and File Systems, Digital Logic