Maria Pavlovic

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SKILLS

Languages: Java, Elixir, Go, Python, C, C++, SQL, TypeScript, JavaScript, HTML, CSS
Frameworks: Spring, Phoenix, Apache Thrift, Zookeeper, Spark, Hadoop MapReduce, React, Jest
Tools & Technologies: Git, PostgreSQL, MongoDB, RabbitMQ, Apache Kafka, MySQL, Kubernetes, Postman, Docker, IntelliJ

EDUCATION

University of Waterloo
Bachelor of Applied Science in Computer Engineering *September 2019 – April 2024*

- Relevant Courses: Distributed Computing, Real Time Operating Systems, Systems Programming and Concurrency, Data Structures and Algorithms, Computer Networks, Database Systems

EXPERIENCE

theScore
Software Engineering Intern, Platform *September – December 2023*

- Designed and built an Elixir and Phoenix-based internal dashboard which streamlines the flow of configuring software components to monitor for a leading sports-betting app, enabling the Release Management team to perform these configuration changes in a centralized location and removes the dependency on the Platform team

Carta
Software Engineering Intern, Backend *January – April 2023*

- Contributed to a top priority project of integrating the Financial Reporting tool into the LLC product, built backend of the starting page with APIs written in Java and Spring Boot, and complex queries to the Postgres database written in jOOQ
- Took on ownership of a high-priority on-call task, writing scripts for altering customer data on the production-level database to aid a major client of the LLC team

Flybits
Software Engineering Intern, Backend *May – August 2022*

- Redesigned the internal auditing pipeline in Go to remove unnecessary dependencies between services and improve the reliability of RabbitMQ messaging
- Worked on automating data migration for a high traffic service to deprecate the Postgres database in favour of MongoDB

Pitstop
Software Engineering Intern, Full-Stack *September – December 2021*

- Developed new APIs and updated React frontend to implement new features on the main user dashboard
- Stabilized functionality and refactored testing of APIs, and increased test coverage by writing new Jest tests
- Created migration scripts for Postgres database to support new UI features, and Python scripts to facilitate large-scale database updates

Uptake
Software Engineering Intern, Full-Stack *January – April 2021*

- Collaborated on creating a document editor built with GrapesJS to 30,000+ users, to remove dependency on developers for document creation and editing, which resulted in 100-250 hours of developer time saved per year
- Built APIs using NestJS and new frontend features with Ext JS to integrate a data analytics tool into the machinery monitoring application (EL/CMP), which added a new automated lab result interpretations view to users
- Wrote APIs and full-coverage Jest unit tests for the EL/CMP Search Page, to deprecate its use of MS SQL stored procedures

PROJECTS

Fault Tolerant Key-Value Storage - *GitHub*

- Built a fault-tolerant distributed system which stores key-value pairs across primary and backup nodes, which use Apache Thrift RPCs to communicate and Apache Zookeeper for replication and detection of node failures
- Full linearizability achieved, tested with a high-volume of continuous get & put operations of key-value pairs through frequent node failures and recoveries, and port number reuse (i.e., new backups reusing port of recently stale primary)

Insulator Hydrophobicity Classifier - *GitHub*

- Developing a web and mobile application to automate classification of insulator defects (loss of hydrophobicity) with deep learning, to remove costly dependency of in-person inspections by utility engineers