

# Maria Pavlovic

mariapavlovic0@gmail.com | GitHub: mariapavlovic | LinkedIn: mariapavlovic | mariapavlovic.com

## SKILLS

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**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

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### University of Waterloo

Bachelor of Applied Science in Computer Engineering

September 2019 – April 2024

## EXPERIENCE

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### theScore

Software Engineering Intern, Platform

September – December 2023

- Built an Elixir and Phoenix-based internal dashboard for the Release Management team to configure the monitoring of software components, centralizing the process and removing the dependency on the Platform team to make these changes
- Identified and corrected Kubernetes configuration issues that led to pods being assigned to the wrong clusters, ensuring correct resource allocation and accurate deployments
- Developed a serializer to convert Elixir maps into TOML, allowing for formatted display of TOML config files on the UI

### Carta

Software Engineering Intern, Backend

January – April 2023

- Contributed to a high priority project of integrating the Financial Reporting tool into the LLC product, by building out the backend of the starting page with APIs written in Java and Spring Boot, and complex jOOQ queries to the Postgres database
- Took on ownership of a top 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 across several services 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, as well as required migration scripts for the Postgres database to support new features
- Stabilized functionality and refactored testing of APIs, and increased test coverage in Jest

### 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, saving an estimated 100-250 hours of developer time per year
- Built APIs using NestJS and new frontend features with Ext JS to integrate a data analytics tool into the machinery monitoring application, adding a new automated lab result interpretations view to users

## PROJECTS

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### Fault Tolerant Key-Value Storage - *GitHub*

- Built a fault-tolerant distributed system to store 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*

- Developed 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