

# Rahul Gudise

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## Skills

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**Languages:** Python, Java, C++, Go, JavaScript, Rust, C, Haskell

**Tools:** AWS, Linux, SQL, Docker, GCP, Git, Protobuf, gRPC, REST, NoSQL, Jenkins

## Experience

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### Tesla, Inc

California, USA

FULL STACK SOFTWARE ENGINEER

Jan. 2024 - Apr. 2024

- Implementing and deploying fault-tolerant low latency micro-services with **C++**, **Go**, **Kubernetes**, and **Docker** to allow for secure remote vehicle access, and diagnostic data transfer from vehicles worldwide
- Developing internal tools with **Python** and **SQL** to enable rapid real-time data querying from Tesla devices worldwide, as well as efficient data processing of large trillion point datasets

### Dejero Labs

Ontario, Canada

LINUX SOFTWARE ENGINEER

Jan. 2023 - Apr. 2023

- Developed low-latency IPC servers using **C++**, **Protobuf** and **gRPC**, increasing data throughput in resource-restrictive Linux environments by 25%, subsequently decreasing API latency by 31%
- Implemented and subsequently leveraged highly efficient web scrapers built with **Python** and **Django**, to generate vulnerability compliance reports for custom **Linux** distributions, increasing customer satisfaction by 45%
- Lead the effort to **containerize** and optimize several high-performance networking services using **Docker**, resulting in a 29% reduction in deployment time, subsequently decreasing infrastructure costs by 11%

### Tréxō Robotics

Ontario, Canada

BACK END SOFTWARE DEVELOPER

May. 2022 - Aug. 2022

- Spearheaded the development of **AWS** microservices built using **Python**, allowing for efficient troubleshooting of over 500+ user devices, decreasing operational costs by 17%
- Leveraged concurrency in **Go** to optimize a highly scalable **RESTful backend** reducing API latency by 23%, and increasing customer satisfaction by 11%
- Collaborated in a dynamic Agile environment and actively participated in daily stand-ups and Scrum ceremonies

### HSBC Bank

Ontario, Canada

CLOUD DEVELOPER

Sept. 2021 - Dec. 2021

- Optimized a cloud-based data processing solution on **Google Cloud** using **Java**, decreasing data ingestion and processing time by 37%, and subsequently increasing customer satisfaction by 8%
- Designed and implemented comprehensive unit tests, enabling rapid detection of code vulnerabilities early on in the development cycle, saving on average 20 hours of cumulative developer time per sprint

## Projects

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### Kadem - Distributed Hash Table 🔄

- Designed and implemented a distributed hash table based on the Kademlia protocol, allowing for decentralized, **low latency** peer-to-peer (**P2P**) communication and data storage, built using **Python**, **Protobuf** and **gRPC**
- Integrated fault-tolerant mechanisms into the Kademlia protocol, allowing for seamless handling of node failures, subsequently ensuring data availability as well as consistency in dynamic P2P networks

## Education

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### University of Waterloo

Waterloo, Ontario

BACHELOR OF COMPUTER SCIENCE, CURRENT 3.9 GPA

Sept. 2020 - Dec. 2024

**Relevant Course Work:** Data Structures (C++), Algorithms (C++), Databases (SQL), Computer Networks (Python), Object Oriented Programming (C++), Operating Systems (C), Machine Learning (Python)