Rishabh Sambare

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TECHNICAL SKILLS

Languages: Python, C++, Java, Go, Rust, SQL, JavaScript, TypeScript

Technologies: AWS, Google Cloud, Docker, Linux, Kafka, Snowflake, Maven, Git, React

EDUCATION

University of Waterloo   Sep 2020 - Expected Apr 2024

BCS Computer Science, Minor in Pure Mathematics | 3.7 cGPA

- **Relevant Courses**: Object Oriented Programming (C++), Data Structures (C++), Algorithms (C++), Operating Systems (C), Application Development (Kotlin)

EXPERIENCE

Siemens | Software Engineer Intern   Jan 2023 – Present

C++, Python, SQL, Java, Snowflake, AWS   Santa Clara, CA (Remote)

- Solved a key consumer pain point by rewriting a Python web service in **C++** with **AWS Lambda**, resulting in <5ms cold start times, less memory overhead, and 57% faster response times for end-users
- Designed and developed an internal performance benchmarking tool in Python to query API endpoints 150 times concurrently, logging and plotting response time aggregates with matplotlib
- Spearheaded the development of a data pipeline with AWS and **Snowflake** to address scalability issues, writing **Java** data pipelines as cloud microservices and Spark-style stored procedures
- Developed a multithreaded **Python** server to parse bitstream data from **Kafka**, ingesting 2.76M packets weekly from 400 unique IoT devices into AWS S3 and decreasing monthly operational costs by 23%

TribalScale | Software Engineer Intern   May 2022 – Aug 2022

Python, AWS, GraphQL, TypeScript, React   Toronto, ON (Remote)

- Migrated a JavaScript server to **AWS Lambda** functions in **Python**, increasing average server uptime by 82% and decreasing costs by 24% while maintaining response speeds
- Developed a GraphQL server for a major client's NFT marketplace, writing AppSync resolvers to **DynamoDB** for fast and highly scalable endpoints
- Implemented multipart file uploads in **TypeScript** and **React** to optimize an **S3** image storage service, reducing delays by up to 200% for 10,000+ users

University Health Network | Software Engineer Intern   Sep 2021 – Dec 2021

Python, Docker, gRPC, scikit-learn   Toronto, ON (Remote)

- Prototyped an open-source 🔗, federated ML service using **Docker** and secure **gRPC**, enabling bioinformaticians to train ML models on 3x more data
- Refactored internal data ingestion tools using **Bash** and **Python**, reducing average job processing time by 52%
- Trained federated logistic regressions with **scikit-learn** over 1 million+ synthetic patients for general-purpose inference, achieving an average AUC-score of 0.86 across experiments

RELEVANT PROJECTS

tiny-redis | A Performant C++ KV Store for Prototyping 🔗

- Built a lightweight C++ key value store relying on the POSIX API and a custom event loop for socket networking and request parsing, processing 500 requests per second.