

Rishabh Sambare

☎ 416-938-8696 | ✉ rsambare@uwaterloo.ca | 🌐 rishabhsamb | 🐙 rishabhsamb | 🏠 rishabhsamb.github.io

TECHNICAL SKILLS

Languages: Golang, Python, C++, TypeScript, SQL, Bash

Technologies: Google Cloud, AWS, Tensorflow, Docker, React, GraphQL

EXPERIENCE

TribalScale Inc — API Development

May. 2022 – Aug. 2022

Software Engineer Intern

Toronto, ON

- Saved 34% in operational costs by designing and developing a serverless backend architecture with AWS Lambda and DynamoDB.
- Leveraged AWS AppSync and GraphQL to centralize 4 different database APIs for an MVP NFT marketplace app.
- Developed custom error handling for 12 TypeScript GraphQL resolvers, introducing 30 unique error types across the GraphQL schema.
- Led the migration of a 2000-line backend codebase from JavaScript to TypeScript, resolving 70% of runtime errors.

University Health Network — Machine Learning

Sep. 2021 – Dec. 2021

Software Developer Intern

Toronto, ON

- Prototyped a scaleable, federated ML service with Flower, developing and orchestrating 3 Dockerized Python microservices and enabling researchers to train models on ~**300%** more data.
- Wrote a [blog post](#) 📄 and gave a [presentation](#) 📄 illustrating the proof-of-concept work to the Canadian bioinformatics community.
- Increased preprocessing pipeline throughput 1.4x by optimizing GraphQL queries and Pandas data transformations.
- Refactored internal data ingestion tools using Bash and Python, reducing development ingestion time by 52%.
- Built predictive models from synthetic data with scikit-learn and Tensorflow for breast cancer diagnoses (AUC 0.79).

PROJECTS

Climbing Regressor — *Python, SQL, scikit-learn*



- Trained a random forest regressor on 1.5M entries of scraped logbook data from a SQLite3 database using Scikit-learn to predict a climber's potential based on gender, height, weight, and time climbing.
- Optimized model hyperparameters with 3-fold cross-validated grid search for a 16% prediction improvement.

Wave Chat (DefHacks 2020 Winner) — *JavaScript, Express, MongoDB*



- Designed and developed a queue-based matchmaking algorithm to connect 1500+ university students to video chats based on common interests and program of study.
- Created endpoints for CRUD operations to a MongoDB database using Mongoose to service Wave Chat's dashboard.

FSS Bot — *Golang, GraphQL, Compute Engine, Cloud Firestore*



- Created a multi-purpose Discord bot written in Go and deployed with Google Compute Engine to serve 100+ users.
- Displayed global weather data from external GraphQL APIs using Khan/Genqlint for compile-time type safety.

EDUCATION

University of Waterloo

Sep. 2020 - Expected Apr. 2024

Candidate for BMath Computer Science — CAV: 82%

- Pursuing a Combinatorics & Optimization Minor
- Recipient of the Math Entrance Scholarship, granted to 200 top performing students entering Math and CS.
- **Courses:** Data Structures, Algorithms, Probability, Statistics, Operating Systems, Numerical Computation
- **Activities and Societies:** Climbing Club, Computer Science Club, ACM-ICPC Local Contests, Cooking Club