Samir Rehmtulla

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Hi! I'm a software engineer. In my spare time, I enjoy running, soccer, tennis, and ping pong.

Technical Skills

- **Programming Languages:** Java, C/C++, Python, R, C#, Golang, Scala, HTML/CSS, Javascript
- **Tools:** Git, Visual Studio, SQL, MongoDB, Thrift, Zookeeper, Hadoop, Tensorflow/Keras, React, Redux

Professional Experience

Snowflake | Distributed Runtime Team   San Mateo, California
Software Engineering Intern   *September 2020 – December 2020*

- Designed a load balancing layer at the shared compute cluster level to balance user workload isolation with efficient multitenant resource scheduling
- Architected and implemented a throttling layer at the request level to prevent users from issuing excessive web requests and straining backend resources

Safe Software | Point Cloud, Vector and Raster Team   Vancouver, Canada
C++ Development Intern   *January 2020 – April 2020*

- Added read and write file support for Microsoft DirectDraw Surface (DDS) and Mapbox Vector Tiles (MVT) file formats to the Feature Manipulation Engine (FME) Release 2020.1
- Implemented highly performant readers and writers in C++14 for DDS and MVT files with a multitude of user-exposed tunable parameters and options

Wish | Analytics Team   San Francisco, California
Software Engineering Intern   *May 2019 – August 2019*

- Constructed training data, built features, tuned parameters and productionized Product Fraud models, using a 2-step pipelined model with Gradient Boosted Trees and Logistic Regression
- Built ML model using TF-IDF NLP algorithm to classify customer service tickets into categories
- Optimized data pipelines for company main dashboard and migrated from Looker to Tableau

Kik Interactive Inc. | Data Science Team   Waterloo, Canada
Data Science Intern   *September 2018 – December 2018*

- Implemented real-time Spark gradient boosted tree model to detect spam users, reducing latency between user registration and spam flagging from hours to minutes
- Designed hyperparameter tuning framework for XGBoost spam detection models
- Extensively used SQL to create dashboards to drive decisions for company experiments

RocScience Inc.   Toronto, Canada
C# Software Development Intern   *January 2018 – April 2018*

- Implemented automatic surface parameterization of arbitrary 3D tunnel mesh geometries to allow clients to apply boundary conditions at discrete intervals on tunnel models

Loblaw Digital   Toronto, Canada
Software Engineering Intern   *May 2017 – August 2017*

- Implemented backend endpoints for new "Store Locator" page with automated tests, mocking necessary web services

Education

University of Waterloo   Waterloo, Canada
Bachelor of Software Engineering, 4B   *September 2016 – April 2021*

- Recipient of First in Class Scholarship (Software Engineering) - 95.16% cumulative average

Projects

GoSudoku: An online, multiplayer collaborative Sudoku platform, built using web sockets
Scala Compiler: A Scala (subset) to MIPS compiler that implements type safety, loops, conditionals and GC
NHL Metrics: - A real-time visual hockey analytics app with XGBoost ML model for shot quality metrics