Murtaza Fatakdawala

Graduating June 2022 | murtazaaz98@gmail.com | www.github.com/murtaza

SKILLS

TECHNOLOGIES

Experienced:
C++ • Go • Python • C • AWS • Docker
Familiar:
MongoDB • Elasticsearch • Kubernetes • SQL • MATLAB • Bash • Ruby • R

EXPERIENCE

WISH | Software Engineering Intern

Sep 2021 – Dec 2021 | Toronto, Canada

- Worked on the core compute infrastructure team responsible for mutliple **Kubernetes** clusters, with languages such as **Go**, **Jsonnet** and **Python**.
- Improved reliabilty and runtime of Kubernetes CI tests to prevent immutable state deployment errors.
- Created a tool to enforce CPU and memory limits and requests for Kubernetes services using **Prometheus** metrics.

SAP | Software Developer

Sep 2020 – Dec 2020 | Waterloo, Canada

- Developed new SAP IQ datalake feature which allowed for querying and importing from remote datasources using local temporary tables, written in **C++**.
- Used the SAP IQ file reader service to read Parquet, ORC, JSON, and CSV formats from remote locations.
- Extended **SQL** grammar to include support for refreshing remote datasources when refresh always was not enabled.

LEAGUE, INC. | Software Developer

Jan 2020 – Apr 2020 | Toronto, Canada

- Created the new marketplace and claims categorization system to improve user experience and data quality using **Go** and **MongoDB**.
- Debugged and fixed a slow service using tracing tools to improve its runtime by **96%** on average.
- Created a variety of APIs to allow access to user data by third party apps to be used in the marketplace.
- Developed an API generator using **Go** to simplify process to write new APIs.

ARCTIC WOLF NETWORKS | Software Developer

May 2019 – Aug 2019 | Waterloo, Canada

- Developed the parsing, fetching, and analysis systems to integrate a financial threat data source into the system applied to over **15 billion** data-points per day.
- Wrote infrastructure code to deploy **ECS** and **DynamoDB** resources used by the service using **Python** and **Troposhere**.
- Added metrics collection system using **StatsD** and error aggregation system (**Sentry**) to Go web server.

ARCTIC WOLF NETWORKS | Software Developer

Sep 2018 – Dec 2018 | Waterloo, Canada

- Applied a **multi-category logistic regression model** written in **Python** to classify intrusion detection rules from a third party source to increase efficiency of security engineers.
- Implemented widely used retry mechanism in **Python** with exponential back-off to simplify retrying against **Elasticsearch**.
- Provided different escalation modes for security incidents to reduce load on **Elasticsearch** as well as improve data model.

PROJECTS

TERMINAL LIVE May 2021 – Present

- Fourth year design project that applies **reinforcement learning** to a 2-player tower defense game called Terminal Live.

EDUCATION

UNIVERSITY OF WATERLOO B.A.Sc in Computer Engineering

Expected June 2022

- Relevant Courses: Distributed Systems, Computer Architecture, RTOS, Computer Networks, Reinforcement Learning