Danial Mohazab

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Languages

- Python
- Java
- C++
- C
- Ruby
- SQL
- TypeScript
- Bash
- HTML/CSS

Tools/Frameworks

- GraphQL
- Flask
- Redis
- Rails
- RSpec
- Docker
- Pandas
- Kubernetes
- TensorFlow
- Spring
- Git
- Selenium

Education

University of Waterloo

Candidate for B. ASc. 2017 - 2022

Mechatronics Engineering

Relevant Coursework

- Data Structures & Algorithms
- RTOS & Computer Structures
- Microprocessors & Digital Logic
- Digital Computation
- Human-Computer Systems

Activities

- Basketball
- Provincial level Soccer
- Video Editing
- Chess

Work Experience

Shopify Plus — **Waterloo, Ontario**

Backend Development Intern — **May 2020 - Aug. 2020**

- Implemented a feature for over 5000 enterprise users to copy all client-facing UI across stores using Ruby on Rails and GraphQL
- Throttled job API requests using the leaky bucket algorithm by storing rate limit consumption in Redis and constraining capacity to 60%, avoiding rate limiting errors when transferring data
- Wrote Unit tests in RSpec and Ruby on Rails to improve code coverage by 28% on Shopify Plus's new store creation flow

HelloFresh Canada — **Toronto, Ontario**

Software Development Intern — **Sept. 2019 - Dec. 2019**

- Developed a back-end application in Python and Pandas to process and serve distribution data required for package delivery, saving Logistics 30+ hours/week and affecting all Canadian consumers
- Created a REST/GraphQL hybrid API data pipeline using Flask to serve as a centralized gateway for a main MySQL database
- Led operations team DevOps process by dockerizing and deploying applications to GitLab CI/CD pipelines using Kubernetes

OANDA Corporation — **Toronto, Ontario**

Software Development Intern — **Jan. 2019 - Apr. 2019**

- Developed a RESTful microservice in Java using Spring that serves OANDA platforms with Dow Jones news articles in real-time
- Refactored exchange rate visual chart endpoint query to reduce stock rate data load time on trading platforms by 32%

Home Trust Company — **Toronto, Ontario**

Software Development and QA Intern — **Apr. 2018 - Aug. 2018**

- Created an ML model using TensorFlow in Python that predicts mortgage funding likelihood at 97% accuracy for loan filtering
- Created automation scripts using Python and Selenium for an agile website redesign project, reducing production launch time by 50%

Projects

Real-Time Operating System

C

- Developed an RTOS using the NXP LPC1768 microcontroller and Cortex-M3 processor with an FPP scheduling algorithm
- Implemented mutexes with priority inheritance and owner test on release, and semaphores with blocking semaphore capability

RobotC-Major

C++

- Developed the controls of a guitar playing robot with the Lego EV3, TETRIX and NXT systems
- Multithreaded motor encoder methods to calibrate mechanical mechanisms after song termination