COMPUTER ENGINEERING · 3RD YEAR STUDENT

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Skills

**Languages**: Python, C, C++, Java, JavaScript, SQL, Bash, ARM Assembly, VHDL **Libraries/Frameworks**: Flask, Boost, Android SDK, Arduino, Selenium WebDriver

Tools: Git, Docker, Docker-Compose, CMake, Linux

# **Projects**

**Thermonitor** IoT device developed with FreeRTOS that monitors the temperature of its environment and notifies consumers when such temperature is out of a desired range.

**PiGoogler** Use a Raspberry Pi's camera to capture an object and with the fast computer vision model Darknet classify the object and send a Google search response to a Flask server.

**Bitcoin Predictor**: Use Google's Natural Language Python client to run sentiment analysis on Twitter and Reddit Data of Bitcoin and feed to an LSTM nerual network built with Keras to predict Bitcoin's price index.

**PyOSRM**: Uses backend libraries of Open Source Routing Machine (libOSRM) to create C++/Python wrapper to allow users to make Python programs that can perform fast routing calculations.

**Toronto's Mood**: NodeJS web app that implements Twitter API to fetch top trends of Toronto and runs Sentiment analysis from Google Cloud's Natural Language API to determine the mood of the city's society.

# Work Experience \_\_\_\_\_

Praemo Inc. Kitchener, Canada

JUNIOR DATA SCIENTIST

Jan. 2018 - Apr. 2018

- Created real-time algorithm for extracting new data of client machines from Redis Streams and calculate features for machine learning model and front-end data visualization application
- Refined backend architecture by creating a multi-node Kafka cluster to increase scalability and reliability
- · Created tool for iterating over MP4 files and generating annotation files to feed to Darknet model for object classification

**Veyo** San Diego, USA

DATA SCIENTIST

May. 2017 - Aug. 2017

- Built Python framework that integrates Keras and Hyperopt to automate the process of building neural networks, optimizing hyperparameters, and model training. Used this framework to improve accuracy of prediction driver availability by building an optimized LSTM neural network
- Worked with software engineers to build a C++/Python wrapper to use Open Source Routing Machine (OSRM) for routing program which solves the Vehicle Routing Problem

**D+H** Mississauga, Canada

SOFTWARE DEVELOPER

Sept. 2016 - Dec. 2016

- Increased efficiency and quality of development process by using Selenium WebDriver and TestNG to create a testing library for targeted web apps
- New library improved development cycle by automating more then 50% of tasks that were done manually in the previous testing environment.

### Education

#### **University of Waterloo**

Waterloo, Canada

BACHELOR OF APPLIED SCIENCE (BASC), MAJOR IN COMPUTER ENGINEERING

Sep. 2015 - Exp. Apr. 2020

• Courses in Algorithms and Data Structures, Operating Systems and Systems Programming, and Embedded Microprocessors Systems, Compilers, Digital Hardware Systems

### **Extracurricular Activities**

Interests: Soccer, Basketball, Tennis, Volleyball, Table Tennis, Poker, Rubik's Cubing, Puzzles, Video Games, DIY electronics