






Shehan Suresh

3A Software Engineering

 shehan.suresh@uwaterloo.ca
 <http://github.com/shehan29>
 shehansuresh.me
 <linkedin.com/in/shehansuresh>
 (416) 471-8024

EDUCATION

University of Waterloo

Software Engineering
Artificial Intelligence Option
Sept 2016 – Present
GPA: 3.96/4
Cumulative Average: 91.4%

SKILLS

Languages

Java, Python, C/C++, SQL, Bash, Scala

Frameworks

TensorFlow, Keras, Scikit-Learn, Spring, Lucene, Node.js, React, Ionic, Selenium

Tools

Kafka, Amazon Web Services, Unix, WebSphere Liberty, Jenkins, Docker, Git

AWARDS

Hack the Valley MLH 3rd Place out of 76 teams	2018
Capital One Outstanding Employee Recognition	2018
Dean's Honours List (Top 10%) 1A, 1B, 2A, 2B	2018
Electric City Hacks Top 5 + Wolfram Alpha Award	2017
President's Scholarship of Distinction and Nortel Scholarship	2016

WORK EXPERIENCE

IBM • Watson Data and AI Co-op • Fall 2018

Java, Bash, Apache Lucene, WebSphere Liberty, Jenkins

- Spearheaded the development of the **Asset Management Service** for the launch of **Watson Studio Desktop**
- **Architected** file system utility APIs that made up **60%** of the **backend** for the critical service
- Developed a custom **document indexer** in order to perform **complex search queries** using **Apache Lucene**
- Wrote and maintained **backup scripts** that ensured the **resiliency** of user data in **Watson Knowledge Catalog**

Capital One • Software Engineer • Spring 2018

Python, Java, JavaScript, TensorFlow, Kafka, AWS, Docker

- Engineered alerts application to reduce account takeover fraud loss by **\$2.5 million** and accelerated the alert delivery time by configuring **multi-threading**
- Increased fraud loss coverage by **18%** by implementing 20 new asynchronous **aggregate features** using **Java Streams** for the transaction fraud detection model
- Strengthened fraud model monitoring by leveraging **self-taught** JavaScript visualization frameworks (D3, DC and crossfilter) to build a **configurable interactive dashboard**
- Built and trained a **deep learning model** using **TensorFlow** and **Keras** frameworks in order to identify new features for the fraud detection model

National Instruments • Software Developer • Summer 2017

JavaScript, Node.js, Python, Django, Selenium, Jasmine

- Independently developed a **WebRTC library** that allows users to stream data from external devices in real time
- Created a **Node.js server** that implements the OpenScope API protocol using **REST APIs** in order to better examine the data streaming capabilities of the product

SELECT PROJECTS

ZoomAI

Python, Pygame

- Designed a flexible **Reinforcement Q-Learning** model that can be trained on **various inputs**
- Trained the **Artificial Intelligence** model over several epochs to **self-drive** in a racing game made with **Pygame**

FINDR – Hack the Valley II

Python, OpenCV, Raspberry Pi, Firebase

- **Autonomous** robot equipped with a **webcam** and **ultrasonic sensors** that locates people in distress
- Utilized **OpenCV** to detect people and plot their GPS co-ordinates on a map in **real time** using **Firebase**