






Shehan Suresh

3A Software Engineering

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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, Node.js, React, Ionic, Selenium

Tools

Kafka, Amazon Web Services, Unix, IBM Cloud Object Storage, Docker, Git

AWARDS

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

WORK EXPERIENCE

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

Java, Bash, Jenkins, Cloudant, Cloud Object Storage

- Spearheaded the development of the **Asset Management Service** for the **launch** of **Watson Studio Desktop**
- Responsible for **architecting** file system utility APIs that made up **60%** of the **backend**
- Wrote and maintained **backup scripts** in order to ensure that customer data in **cloud object storage** can be recovered

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 established a **WebRTC signaling server** that manages **WebSocket** communication allowing devices to stream data to the web in real time
- Co-developed a **WebRTC library** that allows users to easily view and retrieve data from external devices
- 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**