






# Shehan Suresh

## 3A Software Engineering

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## EDUCATION

### University of Waterloo

Bachelor of Software Engineering  
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	
Electric City Hacks	2017
Top 5 + Wolfram Alpha Award	
Dean's Honours List (Top 10%)	2017
1A, 1B, 2A, 2B	
President's Scholarship of Distinction and Nortel Scholarship	2016

## SKILLS

### 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 **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**