

# about

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# programming

Golang Python Java ES6/Typescript React

# interests

machine learning, data science, e-sports, generative art

# education

# **B.A.Sc. in Engineering Science**

University of Toronto

Major in Electrical and Computer Engineering

Thesis: Mobile Hearing Diagnostics

# experience

#### **Twitch**

Software Development Engineer II

10/2018 - present

09/2008 - 04/2013

- Commerce Payments
- Helped launch a machine learning model that scored user's propensity for payments fraud

#### Amazon

Software Development Engineer II

10/2017 - 10/2018

- Fulfillment by Amazon
- Lead a year-long migration effort to re-architect multiple services from Oracle to DynamoDB
- Amazon Security Certifier

#### Amazon

Software Development Engineer I

10/2015 - 10/2017

10/2014 - 10/2015

- Fulfillment by Amazon
- Launched Fedex and Ship with Amazon as inbound carriers for the Amazon Partnered Carrier Program

## **Vantage Analytics**

Software Developer

- Marketing Automation and Analytics as a Service for e-commerce
- Integrated our automated ad generation engine with Facebook Ads and Mailchimp
- Helped launch a major pivot of our core product into a real-time metrics dashboard for store owners

#### **Think Research Group**

Junior Developer 09/2013 - 10/2014

- Lead development of an order requisition web portal using Angular and Play! Framework
- Launched a diagnostic form builder extension for Chrome, Firefox & Internet Explorer
- Automated medical record data migrations from various legacy systems (SQLServer, InterSystems Cache ...)

#### **AMD**

SOC Verification Intern 05/2011 - 08/2012

- Verification infrastructure and development of random testing methodologies for various chip IP's using Perl, C/C++ and SystemVerilog

## **Sunnybrook Health Sciences Center - Medical Imaging**

Developer/Research Assistant

05/2010 - 08/2010

- Conducted a study comparing reperfusion vs. recanalization as an indicator of clinical outcome for stroke patients

# certifications

# **Programming with Google Go**

Coursera 11/28/2018

## **Amazon Internal Security Certifier**

Amazon 01/28/2018

# coursework

#### **Introduction to Data Science**

Amazon Machine Learning University

01/2018 - 02/2018

- Built a simple classifier on an internal customer support request dataset

## **Speech Recognition**

Natural Language Computing - CSC401

03/2013 - 04/2013

- Created a speaker identifier using Gaussian Mixture Models trained over the Mel-frequency cepstral coefficients from the speech waveforms and their phonetic and word transcriptions

## **Facial Expression Recognition**

Machine Learning and Data Mining - CSC411

11/2012 - 12/2012

- Achieved a 77% accuracy on a final dataset of 1000 facial expressions with a SVM with an RBF kernel, grid search and bagging

## **Ray Tracing**

Computer Graphics - CSC418

11/2012 - 12/2012

- Basic raytracer in C++ with anti-aliasing, glossy reflections, basic refraction, soft shadows, area light sources and texture mapping

#### **Operating Systems**

Systems Software - ECE353

01/2012 - 04/2012

- Developed features for OS/161, a simple operating system which includes a standalone kernel and simple user-land written in  ${\bf C}$
- Implemented process management, basic system calls, virtual memory, and a basic hierarchical file system

#### **Battery Sorting Robot**

Engineering Design - AER201

01/2011 - 04/2011

- Designed a fully autonomous robot to sort batteries based on size and charge.
- Fabricated essential components including an H-Bridge motor driver, stepper motor driver, infrared sensors, and power supply