

# Benjamin Yu

Software Engineer

## 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

09/2008 - 04/2013

Major in Electrical and Computer Engineering

Thesis: Mobile Hearing Diagnostics

## experience

### Twitch

Software Development Engineer II

10/2018 - present

- 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

10/2015 - 10/2017

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

### Vantage Analytics

Software Developer

10/2014 - 10/2015

- 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

## **projects**

### **neatga.me**

<http://neatga.me>

08/2014 - 01/2015

- Review aggregator for video games. Built with Angular, and Django

### **Space Bees**

<https://github.com/ben-yu/Space-Bees>

07/2013 - 04/2014

- HTML5 multi-player arcade shooter using WebGL, Socket.io and node.js

### **Forward**

01/2013-04/2013

- Email and project management web app on top of Gmail for the SME market, with a focus on transparency and efficiency. Developed backend with node.js & Postgres

## **coursework**

### **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 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