Education

University of Washington | GPA: 3.70 | Computer Science/Applied Mathematics Double Degree Aug. 2015 – Jun. 2019 (est.)

* **Python, C/C++, Java, JavaScript, PHP, HTML/CSS/XML/JSON/SQL**, Data Structures and Parallelism, **Machine Learning, Artificial Intelligence, GPU Programming**
* Differential Equations, Linear Algebra, Discrete Mathematics and Automata, Probability and Statistics
* Machines Who Learn Reading Group (<https://github.com/joseph-zhong/Papers>)
* Weekly Research Recognition Group Meeting with Prof. Ali Farhadi

Lakeside School | GPA: 3.87 | SAT: 2230 | 1st Quintile Aug. 2013 – Aug. 2015

* Robotics Club Founder, **fundraised over $2,000 in one month** to jumpstart the club

Online coursework

* **Udacity CS344**:Intro to Parallel Programming for CUDA C with David Luebke and Prof. John Owens | Spring 2017
* **Stanford C231N**: Convolutional Neural Networks for Visual Recognition with Prof. Fei-Fei Li, Andrej Karpathy, and Justin Johnson | Summer 2016
* **MIT 6.006**: Introduction to Algorithms with Prof. Erik Demaine and Prof. Srinivas Devadas | Summer 2015

Work and Leadership

Xevo Inc. (acquired Surround.IO) Software Intern Seattle, WA | Jun. 2016 – Present

* Computer vision and Machine Learning: **GStreamer, OpenCV, TensorFlow, Caffe, DeepMask, AWS EC2/Lambda/S3**
* Training/Fine–tuning **Haars/LBP Cascades** and **SqueezeNet/VGG/Inception/ResNet/Spatial Transformer Neural Networks**
* Developed and presented to investors, a **“distracted driver” detector developed in one week (Python)**
* Developed and presented four other critical demos towards Xevo’s acquiring of Surround.io in mid–December
* Owner of training data collection/augmentation pipeline and machine learning infrastructure

Harborview Medical/UW Medicine Developer Research Assistant Seattle, WA | Sept. 2016 – Present

* Product Manager and Full Stack Developer for team of 8 students (**Android, iOS, Java/XML, Swift, JSON, MySQL**)
* Facilitating stroke research with MD David Tirschwell, Dr. Richard Anderson, and Glenn Schubert for 25+ stroke research institutions

StudentRND CodeDay Regional Manager Minneapolis, MN | Aug. 2014 – Oct. 2016

* Organized triennial hackathon for underrepresented students (<http://codeday.org/>)
* Connected with dozens of local sponsors and school districts
* Quintupled registrations and attracted 40% participation from underrepresented groups and women

HackingEDU Android Developer Seattle, WA | Sept. 2015 – Jan. 2016

* Developed the Official **Android** App for 2500+ attendees (**Java/XML)**
* Published a featured technical article on helpful APIs to use during a hackathon ([http://blog.josephzhong.me](http://blog.josephzhong.me/))

TheSilverLabs Software Intern Seattle, WA | Oct. 2015 – Jan. 2016

* Tagging online retailer inventory with NGrams API (**Python**)

CardSwapper Software Intern Seattle, WA | Aug. 2015 – Oct. 2015

- Developed Core Backend Web APIs and QA Tests with **Node.js, MySQL and AWS (JavaScript)**

Projects and Accolades

TreeHacks 2017: Political News Spectrum Classifier Stanford, CA | Feb. 2017 - Present

* Created a Chrome extension that **classified the political bias of news articles** and suggested related articles of complementary context
* Created a **random forest classifier** to discern political bias using extracted features from IBM Watson document sentiment analysis **(Python, JavaScript)**
* **IBM Watson/Alchemy, MSFT Cognitive API, Flask, Scikit–Learn, and NLTK**
* **Project development in progress:** experimenting with **TensorFlow and CNN classifiers**

DubHacks 2016: Qualtrics Best Data Visualization Award Seattle, WA | Oct. 2016

* Created a live **student–confusion detector** with **MSFT HoloLens/Unity/Cognitive API/Azure, Flask, Scikit–Learn, and Firebase**
* Created a **decision tree to discern between “confused” and “engaged”** by extracting Cognitive API metadata on Google Images **(Python, JavaScript)**
* Visualized HoloLens output and compiled metadata to provide live expression feedback to the lecturer

DubHacks 2015: 4th Place Finalist Seattle, WA | Oct. 2015

* Retrofitted a bike to generate **bitcoin** using **AutoCAD, Arduino, Android, MSFT Band, Node.js/MongoDB and MSFT Azure based on calories burned**
* Learned during hackathon: Coinbase API, Android–Arduino Bluetooth, and Azure VM Management

DubHacks 2014: 2nd Place Finalist and Best Microsoft Hack Award Winner Seattle, WA | Oct. 2014

* Built SecondRoute, a background GPS app that detours driver through traffic for **Android and Windows Phone**
* **Learned Android development the day prior**

WashUHack: 1st Place Winner St. Louis, MO | Sept. 2015

* Built **iOS** and web app to analyze sentiment insight from open–response SMS polls with **IBM Alchemy, Twilio, and D3.js**

PennApps XIII: IoT Solution to track perishables Philadelphia, PA | Jan. 2016

* Built web/mobile app to use OCR to scan receipts and provide recipes for foods in order of expiration date

UW Computer Security Competition: 2nd Place Finalist Seattle, WA | Oct. 2015

* Individual finalist in club’s ethical hacking competition

UW ICPC Qualifier: 6th Place Finalist Seattle, WA | Oct. 2016

* One of six teams to qualify to compete in the West Coast Regional Inter-Collegiate Programming Contest

PennApps XIV: Google Honorable Mention Philadelphia, PA | Sept. 2016

AngelHack Seattle: Twitter API Award Seattle, WA | June 2015