

# Akshay Chalana

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## EDUCATION

### University of Washington

Sept. 2015 – June 2019 (Expected)

- Major: Computer Science (Data Science) and Mathematics (Philosophy Track)
- Relevant Coursework: Hardware/Software Interface, Neural Engineering, Systems Programming, Data Structures & Parallelism, Discrete Math, Probability, Data Management, Machine Learning, Algorithms, Real Analysis Complex Analysis, In Progress: Data Visualization, Linear Optimization, Modern Algebra

### TECHNICAL SKILLS/LANGUAGES

- Web: MEAN (MongoDB, Express, Angular.js, Node.js) stack, Python (Flask), React.js, Java, PHP
- Mobile: React Native, Android Native (Java)
- Machine Learning: Python (Apache Spark, sk-learn, Tensorflow [Keras - CNNs, RNNs, Autoencoders]), R
- Other: Racket (dialect of Lisp), C, C++, x86 Assembly

## RELEVANT EXPERIENCE

### Doppler Labs (San Francisco, CA)

#### Machine Learning Intern

June 2017 – September 2017

- Improved filter suggestion based on client usage of buds
- Developed Tensorflow (Keras) models in Python for Audio Scene Classification

### University of Washington (Seattle, WA)

#### Research Assistant

Dec. 2016 – June 2017

- Work on SIMPL: Partial Evaluation of Inference Algorithms (Bayes Networks) in Racket
  - Implementation of various models and algorithms using this framework

### Tesla (Palo Alto, CA)

#### Software Engineering Intern

June 2016 – September 2016

- Hardware Development Test & Analysis Team
- Developed Features of PHP Hardware Test Data Visualization/Analysis App
- Wrote firmware (C++) for STM32 and PIC-based Test Boards
- Developed Python interfaces for test equipment and vehicle components for monitoring and test

### UWashington Hyperloop (Seattle, WA)

#### Control Systems Engineer

August 2015 – Present

- Embedded Software Development for SpaceX Hyperloop Pod Development Competition
- Developing a real-time sensor data telemetry system using Microchip PIC18F4685 (programmed in C), an RS-232 interface with provided SpaceX network, and a custom GUI for data visualization (written in Python).

### GiveSafe (Seattle, WA)

#### Software Development Intern

December 2015 – June 2016

- Built features of native Merchant Android application for interacting with beacon-holders (homeless individuals)

## PERSONAL PROJECTS

### GiftGenie.io (CodeDay Spring 2015)

<https://github.com/Ac2zoom/giftgenie.io>

Gift suggestion web app (Node.js) based on Facebook likes & Amazon/Goodreads APIs (built entire backend)

### Bodyguard (Top 30 @ PennApps Jan. 2016)

<http://www.devpost.com/software/pennapps11am>

Android app for automatic emergency notification to friends/family/emergency services through voice commands. (built backend and various components of frontend)

### Playsmid (DubHacks 2016)

<http://devpost.com/software/playsmid>

Online videogame platform (Node.js app) for Synthetic Biology education and simulation (built backend and some frontend functionality).

### Waitr.ai (AngelHack Silicon Valley 2016)

<http://www.hackathon.io/waitr-ai>

Amazon Alexa Skill human replacement for drive-thru restaurants (built frontend and NLP parsing for backend).