

Bernie Wang

☎ (858)-956-9171 | ✉ bernie7197@gmail.com | 📱 bernwang

Education

University of California, Berkeley

M.S. Electrical Engineering & Computer Science, 4.0 GPA

B.S. Electrical Engineering & Computer Science, 3.81 GPA

Berkeley, CA

Aug. 2019 - Aug. 2020 (expected)

Aug. 2015 - May 2019

Industry Experience

Amazon | AWS IoT Greengrass

Seattle, WA

Software Development Intern

May - Aug. 2019

- Designed and implemented a AWS Lambda function that enables deployment of edge devices without the need to be connected to the cloud, reducing the number of steps in the deployment process by 4x
- Leveraged AWS Greengrass and machine learning algorithms to prototype a smart home security camera that detects and uploads video with human activity to the cloud

Amazon | Subscribe&Save

Seattle, WA

Software Development Intern

May - Aug. 2018

- Designed and implemented a feature that customers can opt into that automatically subscribes to a recommended substitute product when a product for their current subscription is no longer available on the Subscribe&Save platform

Perseus Mirrors

Boston, MA

Software Engineer Intern

June - Aug. 2017

- Developed a web app where users can customize widgets and what they want to see on the display of their smart mirrors
- Design the sqlite schema for storing widget configurations
- Implemented a RESTful API that allows real-time updates from the web app to the smart mirror

Research Experience

Adept Lab/Berkeley AI Research

Berkeley, CA

Research Assistant, advised by Prof. Kurt Keutzer

Aug. 2019 - Now

- Researching sample-efficient off-policy meta-reinforcement learning algorithms
- Designed and engineered an efficient human-in-the-loop pipeline for annotating 3D LiDAR data used to train autonomous driving perception systems
- Authored paper on "Accelerating LiDAR Point Cloud Annotation via Sensor Fusion, One-Click Annotation, and Tracking", which was accepted into the IEEE Intelligent Transportation Systems Conference 2019

Projects

3D LiDAR Data Labelling Web Application

Feb. 2017 - April 2018

- Developed the first data labelling web application for 3D point cloud data to be open-sourced on Github
- Implemented the 3D GUI with Three.js and back-end with Flask to expose an API endpoint for leveraging machine learning algorithms
- Improved annotation speed of autonomous vehicle training data by 6.2x by leveraging image segmentation algorithms

Technical Skills

- **Languages:** Python, Java, Javascript, Golang, C
- **Frameworks:** PyTorch, Tensorflow, Numpy
- **Tools:** Anaconda, Docker