

Bernie Wang

☎ (858)-956-9171 | ✉ berniewang@berkeley.edu | 💻 bernwang.github.io | 📱 bernwang

Education

University of California, Berkeley

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

B.S. Electrical Engineering & Computer Science, 3.8 GPA

August 2019 - December 2020 (expected)

Aug. 2015 - May 2019

Technical Skills

- **Languages:** Python, Java, Javascript, Golang, C, HTML, CSS
- **Tools:** NumPy, PyTorch, Tensorflow, Flask, Anaconda, Docker, Git

Industry Experience

Software Development Engineer Intern | AWS IoT Greengrass

May - August 2019

- Developed an offline workflow for deploying edge devices using AWS Lambda, reducing deployment time by 4x
- Designed an API and command line interface for IoT developers to easily deploy and test their code on edge devices
- Demonstrated improved workflow with smart home security camera leveraging AWS and machine learning

Software Development Engineer Intern | Amazon

May - August 2018

- Developed feature that substitutes customers' subscriptions when their subscribed products are no longer available
- Implemented an API to perform CRUD actions on subscription data stored in DynamoDB tables
- Collaborated with fellow intern on designing a DynamoDB table shared by multiple projects

Software Engineer Intern | Perseus Mirrors

June - August 2017

- Developed a web app with Flask that enables users to customize the home screen and widgets on their smart mirrors
- Designed 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

Research Assistant | Berkeley AI Research, advised by Prof. Kurt Keutzer

February 2018 - Now

- Trained robot agents to multi-task efficiently using meta-reinforcement learning
- Designed an efficient human-in-the-loop pipeline for labeling 3D LiDAR data used to train self-driving cars
- Published paper on "LiDAR Point Cloud Annotation" featured in IEEE Intelligent Transportation Systems Conference

Research Intern | Fujitsu Laboratories of America

June 2016 - August 2016

- Researched human-computer interactions to understand the impact of software tools on productivity
- Developed a web app that suggests tools to software engineers in order to solve their work-related issues

Projects

LATTE (3D Data Labeling Application)

February 2017 - April 2018

- Open-sourced the first data labeling web application for 3D point cloud data on Github
- Improved labeling speed of autonomous driving data by 6.2x using human-in-the-loop design
- Implemented Flask backend that exposes an API endpoint for plugging in machine learning models

Photo Stitcher

October 2018

- Developed a web app that stitches photos together to create a panorama
- Implemented image feature matching and automatic stitching with NumPy