Bernie Wang

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Education

University of California, Berkeley *Berkeley, CA*
M.S. Electrical Engineering & Computer Science, 4.0 GPA *Aug. 2019 - Aug. 2020 (expected)*
B.S. Electrical Engineering & Computer Science, 3.8 GPA *Aug. 2015 - May 2019*

Technical Skills

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

Industry Experience

Software Development Engineer Intern | AWS IoT Greengrass *May - Aug. 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 - Aug. 2018*
- Developed feature that substitutes subscription when a customer's subscribed product is no longer available
- Implemented an API to perform CRUD actions on subscription data in DynamoDB table
- Collaborated with fellow intern on designing a DynamoDB table shared by multiple projects

Software Engineer Intern | Perseus Mirrors *June - Aug. 2017*
- Developed web app with Flask for users to customize widgets and the home screen 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 *Feb. 2018 - Now*
- Researching efficient meta-reinforcement learning algorithms
- Designed an efficient human-in-the-loop pipeline for annotating 3D LiDAR data used to train self-driving cars
- Published paper on "LiDAR Point Cloud Annotation" for IEEE Intelligent Transportation Systems Conference 2019

Research Intern | Fujitsu Laboratories of America *June 2016 - Aug. 2016*
- Researched human-computer interactions to learn how finding the right tool for work improves productivity
- Implemented a web app that helps software engineers find tools that would solve their work-related issues

Projects

LATTE (3D Data Labeling Application) *Feb. 2017 - April 2018*
- Open-sourced the first data labeling web application for 3D point cloud data on Github
- Implemented 3D GUI with Three.js and Flask backend to expose an API endpoint for leveraging machine learning
- Improved annotation speed of autonomous vehicle training data by 6.2x using human-in-the-loop design

Photo Stitcher *Fall 2018*
- Automatically stitches photos together to create a panorama
- Implemented image feature matching and warping with NumPy