

# Scott Bauersfeld

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## Education

### University of California, Los Angeles

*Master's in Computer Science & BS in Computer Engineering*

**December 2020**

**GPA: 3.99 | Honors:** Departmental Scholar & Summa Cum Laude

## Technical Skills

- **Languages:** C++, Python, JavaScript, React, Node.js, Go
- **Technologies:** AWS, PyTorch, TensorFlow, Docker, Git, Agile, Unit testing

## Work Experience

### Amazon AWS – Software Development Intern

**June 2020 - September 2020**

*Project Objective:* Create a web tool to identify AWS service failures and decrease remediation time

- Designed and implemented a serverless backend with AWS API Gateway, Lambda, and Node.js
- Created an interactive frontend with JavaScript and React to display tabular information

### Qualcomm – Software Engineering and Machine Learning Intern

**June 2019 - September 2019**

*Project Objective:* Accelerate ONNX machine learning framework performance on Qualcomm chips

- Dynamically parsed ONNX models to map operations to specialized mobile device cores
- Accelerated inferencing rates up to 60x for popular models such as MobileNet and ResNet

### Symantec – Software Engineering Intern

**June 2018 - September 2018**

*Project Objective:* Update a C++ virus scanning API to automatically remove/replace infected files

- Participated in Agile development cycles to deliver remove/replace functionality
- Provided 100% unit test coverage in C++ and integration tests in Python

## Research Experience

### AI Augmentation for Brain-machine Interfaces

**September 2019 - Present**

- Implementing deep convolutional and recurrent neural networks to predict intended cursor movements for state-of-the-art brain-machine interfaces
- Preprocessing electroencephalogram (EEG) data to reduce noise and improve accuracy

## Projects

### Paxos-based Large Scale Distributed System

**June 2020**

- Designed a key-value database service that provides scalability through sharding and strong consistency through the Paxos protocol

### Double Deep Q Learning for Atari games

**May 2020**

- Implemented and trained Double Deep Q Learning PyTorch models to play Pong and Breakout based on ideas in “Human Level Control Through Deep Reinforcement Learning”

### Automatic Speech Writer

**May 2020**

- Summarized over 1200 presidential speeches with pretrained BERT models
- Finetuned GPT2 models to automatically generate speeches when given a summary input

## Leadership Experience

### UCLA Backpacking Club Officer

**September 2018 – June 2020**

- Assist in managing a club with over 100 hundred members and plan events to build a community of people with a passion for the outdoors

### The Coding School Teacher

**January 2019 – March 2019**

- Prepare lessons and teach programming fundamentals to middle school students