Jeffrey Shen

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EDUCATION

University of California, Berkeley **May 2023**
B.S. Electrical Engineering and Computer Science GPA: 3.85
Courses: Optimization Models (In Progress), Comp Vision (In Prog), Comp Security (In Prog), Intro AI, Data Science Principles, Operating Systems, Algorithms, Comp Architecture, Data Structures, Discrete Math & Probability

SKILL HIGHLIGHTS

Proficient in: Python/pandas, Java, C/C++/C#, Git/GitHub, Node.js/React, Unity
Familiar: Angular, GraphQL, MongoDB, SQL, AWS, OpenCV, Linux, RISC-V Assembly, Scheme, Ansible

WORK EXPERIENCE

Software Engineering Intern **– Qualcomm,** San Diego, CA (Embedded/Data Sci Dev) **May 2021 – Aug 2021**
- Created automated test framework for 5G modem SW sleep prediction algorithm (C/C++, Python, XML)
- Wrote Python Jupyter notebook to analyze/visualize data from test framework for algorithm comparison
- Designed and implemented new sleep algorithm (13% more sleep time to improve modem battery usage)
- QHacks Intern Hackathon Award: full-stack web app with custom facial recognition (Python, React)

Backend Software Engineering Intern **– The Sipher Company,** Berkeley, CA (Cloud Dev) **April 2021 – Present**
- Integrated backend AWS S3 bucket data files with MongoDB using AWS Lambda Python deployment

Software Engineering Intern **– Northrop Grumman,** Redondo Beach, CA (Full Stack Dev) **Jun 2020 – Dec 2020**
- Backend with Node.js/MongoDB: implemented RESTful API routes for Ansible Dashboard web app using the MEAN stack that monitors and configures virtual machines (VMs), deploys Ansible Roles, view status
- Frontend with Angular: created a dynamic table of VM performance metrics, Git integration
- Achieved 100% story completion rate in all sprints (Agile Scrum Team) and got Part-Time offer

Engineering Intern **– Harmony.One,** Mountain View, CA (Blockchain Dev) **Jan 2020**
- Learned protocols for multi-shard PoS Harmony Blockchain and developed cross-shard token transfer test
- Loaded network infrastructure of blockchain testnet with multiple AWS instances, resulting in 1,000 TPS

Software Engineering Intern **– Boeing,** El Segundo, CA **Jun 2018 – Aug 2018**
- Created Bill of Materials Comparison Program to visualize component revisions using Python and Tkinter

EXTRACURRICULARS

Object Detection & Classification Team **– AeroBear, UAVs@Berkeley** **Jan 2020 – Present**
- Implemented object detection software using OpenCV to accurately determine alphanumeric orientation with contour detection and template matching algorithms for Unmanned Aerial Systems Competition

Senior Content Mentor **– Computer Science Mentors at UC Berkeley (CSM)** **Aug 2020 – Present**
- Led Data Structures (CS61B) course section, teaching data structure concepts and reviewing problems
- Assisted and taught debugging skills to students during labs involving data structure implementations

President **– FIRST Robotics Competition (FRC) Team 1197 TorBots** **Sept 2016 – Jun 2019**
- Programmed 140 lb. robot's control system which included state machines, PID controls & vision tracking
- Created desktop Scouting App to analyze robot performance using Xbox controllers with Unity, C#, SQL

PROJECTS

LAHacks 2021 EasyEV Web App [1st Place BlackRock Challenge] (easyev.studio)
- Built full-stack web app to help users find the EV that fits their needs, including EV news with sentiment analysis for investing/reviews, using React, GraphQL, Google Cloud NLP API, and news & stocks APIs

CalHacks 6.0 Tasker Android App
- Worked on productivity app with to-do list that tracks time spent to predict assignment length with Java

Website Development
- Developed and deployed code for personal portfolio (jshen13.github.io) and business site (tcherbs.com)

CS170 (Algorithms) Final Project
- Solved NP Integer Linear Prog reduction using AWS, GC, placed 6th/244 classwide to find optimal solutions