Jeffrey Shen

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EDUCATION

University of California, Berkeley **May 2023**
B.S. Electrical Engineering and Computer Science GPA: 3.77
Courses: Intro AI [In Progress], Data Science Principles [In Progress], Operating Systems [In Progress], Algorithms, Computer Architecture, Data Structures, Discrete Math & Probability Theory, Computer Programs

SKILL HIGHLIGHTS

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

WORK EXPERIENCE

Software Engineering Intern **– Northrop Grumman, Redondo Beach, CA (Remote)** **Jun 2020 – Dec 2020**

- Wrote backend RESTful API routes for Dashboard for Ansible web app using the MEAN stack that monitors and configures virtual machines (VMs) using Node.js by deploying Ansible roles and querying MongoDB
- Supported frontend development, working full stack, creating a dynamic table of VM performance metrics using Angular and connected API functionality to populate VM, role, & Git repo components with live data
- Worked in Agile Scrum Team achieving 100% story completion rate in all sprints and got Part-Time offer

Engineering Intern **– Harmony.One, Mountain View, CA** **Jan 2020**

- Developed Python script for customizable testing of Harmony Blockchain cross-shard token transfer
- Loaded network infrastructure of blockchain testnet with AWS instances, creating 1,000 transactions/ sec

Software Engineering Intern **– Boeing, El Segundo, CA** **Jun 2018 – Aug 2018**

- Led group of interns in creating a Bill of Materials (BOMs) Comparison Program which provides analytics and visual distinctions between component revisions using Python, Tkinter, and Excel

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

Associate Mentor **– Computer Science Mentors at UC Berkeley (CSM)** **Aug 2020 – Present**

- Ran CS 61B course group tutoring session, teaching data structure concepts and reviewing worksheets
- Attended mentor meetings to facilitate more effective methods of teaching and engagement in students

Academic Intern **– CS 61B Data Structures Course Staff** **Aug 2020 – Dec 2020**

- 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
- Led the development of a desktop Scouting Application which records and analyzes performance of other robots based on data collected through Xbox controllers using Unity, C#, SQL, and Git

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 a business site (tcherbs.com) and personal portfolio (jshen13.github.io)

CS170 (Algorithms) Final Project

- Solved NP-complete problem by reducing to Integer Linear Program and using cloud instances (AWS, Azure, Google Cloud), placed 6th/244 teams in class wide competition to find most optimal solutions