

EDUCATION

University of California, San Diego

July 2017 - June 2021 (Expected), B.S. COMPUTER SCIENCE, GPA: **3.969** (Provost Honors for all quarters)

SKILLS

**C++ Python Java Javascript C# C React Node.js SQL Swift Golang
Docker Kubernetes Istio MongoDB OpenGL AWS (EC2, Amplify, S3)**

EXPERIENCE

UCSD Computer Science and Engineering Department — *Teaching Assistant*

September 2019 - December 2019, September 2020 - March 2021

- Delivered lectures on class assignments and operating system concepts to around 50 students; Assisted students by troubleshooting and debugging OS projects in an undergraduate Operating Systems class
- Facilitated student discussion, constructed assignments and guided students on research projects in a graduate course for Computing Education Research

VMware— *Software Engineering Intern*

June 2020 - September 2020

- Developed a RESTful API microservice using ASP.NET Core to detect conflicts between device installation workflows represented by ASL (Amazon States Language) in VMware's UEM product.
- Implemented extensive unit, integration, and load tests using xUnit and Locust.
- Improved key algorithms in ASP.NET Core services using multi-threading to reduce runtime by half.

Mitchell International— *Software Engineering Intern*

June 2019 - September 2019

- Formulated a proof of concept for the breakdown of monolithic JBOSS API integration services into microservice-style Kubernetes pods to modernize the architecture of a SaaS product.
- Implemented traffic routing, telemetry, authentication and logging of the Kubernetes clusters with the service mesh Istio.
- Developed file utilities in Java to automate the mapping of data fields in XML files.
- Built API microservices in Spring with test cases automated in Microsoft Test Manager.

Sysvine Technologies— *Software Engineering Intern*

May 2015; May 2016; May 2017

- Developed and debugged a commercial hospital management application in Java impacting around 150 patients.
- Redesigned UI in a Javascript enterprise web application ensuring user-friendliness.

RESEARCH

Projection Boxes— *Undergraduate Research Assistant*

Designed and implemented webpages of an in-browser Live Programming tool made with pyodide and VS Code's Monaco editor.

Gerald's CER Lab (Live Coding group) — *Head Research Assistant*

- Maintains the code base of logging tools to record student coding behavior during student-led live coding sessions.
- Conducted coding interviews with students to analyze programming strategies inculcated by Live Coding.

COMPETITIONS/PROJECTS

Komrade's Kitchen

https://www.youtube.com/watch?v=kt68iuyPuaU&ab_channel=TheQualcommInstitute

- Gameplay developer for a multiplayer free-for-all cooking game built with C++, OpenGL, sfml and ImGui.
- Responsible for UI interfaces, player movement, player-object interactions, game logic, and sound design.

LAHacks 2020 - 95Defender

- Developed a web app that 'photoshops' N95 masks onto faces in images using a cascade classifier with React.js, Javascript and Python.
- Designed the UI and dockerized the back-end ML API to be portable and lightweight. Utilized AWS Amplify to host the front-end React app and an AWS EC2 container to host the Docker image of the API.