

# VINCENT WHIZIN

San Diego, CA [www.vwheezy.com](http://www.vwheezy.com) [info \[at\] vwheezy \[dot\] com](mailto:info[at]vwheezy[dot]com)

---

## WORK EXPERIENCE

### Research Assistant

01/2021 - 01/2022

UCI Mars Research Group, Irvine, CA

- Aided development of Redleaf, a microkernel OS built in Rust that uses lightweight language-based abstractions to demonstrate the practicality of fine-grained fault isolation in a commodity-like OS.
- Explored usage of Redleaf as a hypervisor by developing virtio net and block device drivers. Implemented low-level PCI driver/configuration, MMIO configuration, and virtio spec.
- Developed Python GDB script to ease Redleaf development by automatically loading symbol files of IDL code generated domains.
- Awarded \$8,000 NSF REU grant to fund research

### Tech Lead

09/2017 - 06/2019

California Scholarship Federation (CSF) and National Honor Society (NHS)

- Programmed NHS and CSF Tutoring Front End with Vue.
- Created CSF Tutoring REST API in Node.js, Express, and MongoDB.
- Utilized AWS SMS service to message tutors and students.
- Maintained and added requested features to CSF registration program using PHPMyAdmin and MySQL.

## EDUCATION

### University of California, Irvine

2019 - 2023

B.S. in Computer Science, GPA: 3.8

- University courses plus additional work in Operating Systems, Networking, and IoT/Embedded electronics.
- Notable Achievements: UC Regents Scholarship, 1st Gen. College Student, 4x Dean's Honor Roll
- Associations: Association for Computing Machinery (ACM), Institute of Electrical and Electronics Engineers (IEEE), UCI Climbing Club

### Mission Vista High School

2015 - 2019

GPA: 4.2

- Elected as 1 of 1000 boys in California to attend Boys State Program.
- Produced annual TEDxYouth @ MVHS show.
- Student Leader for 2.5 years at "Victory" volunteering organization. Managed over 400 volunteers, gained over 1000+ volunteering hours.
- Senior Vice President of ASB, President of Programming Club.

## PROJECTS

### Spikepen:

- A mobile app sponsored by UCI that allows users to deploy an autonomous Arduino robot along a specified path for geospatial data collection including distance, speed, elevation, etc. Intended especially for civil engineers to help them further understand their environment.
- 5-sprint Scrum and weekly sponsor meetings to deliver full documentation, use case diagrams, and final presentation.
- Recreated Arduino build system with Nix and Make for reproducible builds targeting different team members' OS, allowing native C++ development. Built with GPS, servos/motors, ultrasonic sensors, and BLE technologies.
- Sleek and modern iOS front end built using React Native, Typescript, Redux, and Google Maps API.

### Homelabbing:

- Built custom, secure, and private home infrastructure with Proxmox, LXC, Docker, VLANs, DNS, and various other services. Goals were to get additional experience in Linux, networking, and SDLC while making something that I found useful.
- Interesting challenges include: serial debugging bricked iDRAC to fix corrupted U-Boot, configuring router from scratch on Raspberry Pi with NixOS, and others.

## SKILLS

**Languages:** Rust, Python, JavaScript, C, C++, SQL, Java, Lua, Lisp, x86 and MIPS assembly

**Technologies:** Linux, Git, Docker, AWS, MongoDB, Express, Vue, React, Node.js, MySQL, jQuery