VINCENT WHIZIN

San Diego, CA   www.vwheezy.com   info [at] vwheezy [dot] com

WORK EXPERIENCE

Mars Research Group   01/2021 – 01/2022
Research Assistant   Irvine, CA
- Developed on 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 drivers to implement disk and net devices in virtualized environments. Built 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.

Spikepen   09/2020 – 09/2021
Software Engineer   Irvine, CA
- 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.

California Scholarship Federation (CSF)   09/2017 – 06/2019
Tech Lead   Oceanside, CA
- Developed web platform for school's CSF and NHS programs to algorithmically pair tutors and tutees and facilitate communication between the students. Built on Node.js, Express, Vue, and MongoDB tech stack. Implemented authentication logic, AWS SMS, and captcha. Webpack and Babel dev tooling utilized.
- Maintained LAMP program that was used to associate student IDs with internal database, allowing check-in during meetings to use ID cards. Facilitated management using PHPMyAdmin.

EDUCATION

University of California, Irvine   2019 - 2023
B.S. in Computer Science, GPA: 3.8
- Notable Courses: Operating Systems, Networking, and IoT/Embedded electronics.
- Awards: $20,000 UC Regents Scholarship, $8,000 NSF REU research grant, 1st Gen. College Student, 4x Dean's Honor Roll.

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. Senior Vice President of ASB, President of Programming Club.
- Student Leader for 2.5 years at "Victory" volunteering organization. Managed over 400 volunteers, gained over 1000+ volunteering hours.

PROJECTS

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