




TYLER ALAMO PORT

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EDUCATION

California Inst. of Technology [Caltech], B.S. in Computer Science:

Jun. 2022

- Studied Computer Science with a focus on low level GPU Programming for parallelizing and accelerating a variety of algorithms. Taught and composed material for several courses.

WORK AND EXPERIENCE

Carl Zeiss AG., Germany, System Software Engineer

March 2023 -

- Subject matter expert regarding Graphics Processing Units (GPUs) and Field Programmable Gate Arrays (FPGAs)
- Worked on and assisted in various projects making use of High Performance Compute in CUDA C++, SYCL, OpenCL, and Python.
- Deployed and tested FPGA implementations of Pytorch models for image signals processing.

Caltech, Lecturer and Teaching Assistant in Computer Science

April 2018 - June 2022

- Translated and reimplemented assignments for CS24 (Operating Systems) from C to Rust.
- Lectured, held office hours, developed material, and graded Nvidia CUDA assignments for CS179 GPU Programming.
- Taught relational database theory and use with Structured Query Language (SQL) in CS121.
- Taught Rust programming for the CS11 Rust language workshop.

North American Partners in Anesthesia., Software Engineering Intern

Dec 2019 - August 2020

- Automated inter-database information validation between Cactus and the National Provider Database, and worked on integration with legacy healthcare data systems.

Tinder Inc., Software Engineering Intern

June 2018 - August 2018

- Researched and implemented an extension of Prometheus and Grafana, using Python and Puppet, that walked the graph of microservice dependencies to determine what services were degraded based on a dependency.

NASA Jet Propulsion Lab, Software Engineering Intern

January 2018 - June 2018

- Worked on trajectory finding and visualization for the Europa Lander mission, reimplemented orbital calculations from MatLab to CUDA C++ for parallelization.

Caltech IMSS, IMSS Representative and Systems Administrator

January 2016 - June 2022

- Worked on trajectory finding and visualization for the Europa Lander mission.

DoubleVerify Inc., Bot Fraud Analyst Intern

June 2015 - September 2015

- Infected machines with malware and analyzed the collected network traffic for evidence of botnet based ad fraud.
- Researched botnet forums for new developments in the field, especially the prevalence of voluntary botnets known as traffic exchanges, and YouTube based revenue generation.

KarmaFleet, Director of Technology

January 2015 - September 2016

- Used Python, Flask, SQLAlchemy, and PostgreSQL to develop a web application for managing a large group of players (4500+) in the MMORPG EVE Online.
- Implemented containerized deployment, continuous integration, and robust authentication and monitoring systems.
- Managed voice over IP, forums, chat, and other services for the corporation.

GLO Gaming, Office IT, Director of Technology

January 2012 - September 2014

- Managed the IT infrastructure, including extension of Salesforce CRM integrations, backups, networking, security, and user support.

SKILLS

- Languages: Rust, Python, C/C++, CUDA/SYCL/OpenCL/HIP, C#, Haskell, VHDL, OCaml, Javascript, SQL, Java/Kotlin, Mathematica.
- Platforms/Technology: Linux (Gentoo, Arch, RHEL/Fedora, Debian/Ubuntu), Windows, MacOS, BSD, FPGA (Intel, AMD, Lattice), Git, Docker.
- Specialties: GPU programming, functional programming, computer graphics, relational database design and management, graph theory, systems administration, DevOps.