Andrew Pan | computation enthusiast

Modified Apr 2023, Git revision 7b485fe • tny.town/cv.pdf

Experiences

Further details and work samples available on request.

CrowdStrike

Software Engineer Intern

Summer 2022

- → Instrumented Go service and built Grafana dashboard to expose per-endpoint response metrics.
- → Retooled Makefile-based build system to support integration of Rust library into Go service.
- → Developed, tested, and deployed new features in Go services with Jenkins, Kubernetes, and Spinnaker.

Adamala-Engelhart Lab

Undergraduate Research Assistant

2021-present

- → Maintaining a predominantly Python Flask+SQLAlchemy app to enable research with synthetic biology of cyanobacteria.
- → Retrofitted a novel and intuitive VueJS interface on top of the Flask app.
- ightarrow Exploring novel applications of computing to synthetic biology research.

ACM UMN

Webmaster, Vice President

2020-2023

- → Planned the first and only online MinneHack (Minnesota's largest hackathon) with the ACM officers. Prepared promotional materials and executed a non-traditional hackathon structure.
- → Maintained web presence for the ACM UMN, static sites checked with GitHub Actions CI and Nix.
- ightarrow Conducting events for students interested in computing, including UNIX classes and Capture The Flag.

College of Science and Engineering

Teaching Assistant

Fall 2022

→ Provided feedback on student assignment submissions, conducted weekly labs.

Education

University of Minnesota

Bachelor of Arts in Computer Science

2019-2023

Dean's List, multiple semesters. Waller Scholarship recipient.

Trivia

Ask me about the following things.

web: REST, PHP, Node, HTML/JS mobile: Java, Android apps, Frida

sysadmin: NixOS, UNIX-like OSes, awk, sed, Docker **misc**: Git, CI/CD, Reverse Engineering, r2, Go, C/C++

Personal Projects

Check out more on my GitHub profile!

website 🔂

keywords: blog, writing, nix

Personal blog with posts related to software.

tpl-c900-openwrt-install 🖓

keywords: reverse engineering, embedded, unix, lua, go

Broke firmware verification scheme on the TP-Link Archer C900, a consumer router. Installed open source router firmware (OpenWRT). Documented process.

u2dl 🖸

keywords: web, fish, unix, ffmpeg

Developed Fish shell script to download YouTube videos. Bypassed the "rolling cipher" with standard Unix tools. Wrote an accompanying minifier to compress the script down ~291%, final size 2kb.