

Andrew Pan | computation enthusiast

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Modified Mar 2023, Git revision 8a1301c • tny.town/cv.pdf

Experiences

Further details and work samples available on request.

CrowdStrike

Software Engineer Intern

May–August 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.

College of Science and Engineering

Teaching Assistant

2022–present

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

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.
- Exploring novel applications of computing to synthetic biology research.

ACM UMN

Webmaster, Vice President

2020–present

- 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.
- Conducting events for students interested in computing, including UNIX classes and Capture The Flag.

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, rz, 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.