

Crystal Zhan

zhancrystal09@gmail.com | linkedin.com/in/crystalzhan | github.com/mr4tt | Website: starly.dev

EDUCATION

University of California San Diego

Oct. 2020 — June 2024

Bachelor of Science in Cognitive Science — Specialization in Design and Interaction

3.9 GPA

Relevant Coursework:

Computer Science: Data Science in Practice, Software Tools, Data and Model Programming, Databases

Design: Prototyping, Usability & Information Design, Interaction Design, Product Design

EXPERIENCE

Information Security Intern | *Jump Trading*

June 2023 — Aug. 2023

- Analyzed hundreds of terabytes of firewall metrics from **Clickhouse** with **SQL**, **Python**, and **Pandas** to find traffic abnormality patterns for alerts, such as traffic from suspicious ports
- Created pipeline to extract data from proprietary VPN logs using Pandas, insert them into Clickhouse with SQL, and send them into a **Grafana** dashboard to list information like latency, errors, and kernel panics
- Used **Jenkins** with Configuration as Code in **Podman** for automating pipelines to run at certain intervals

Instructional Assistant — Computer Science Department | *UCSD*

Jan. 2023 — June 2023

- Taught Programming Tools & Techniques to **650+** students
- Assisted **100+** students in lab with confusion points and facilitating group work about **Linux CLI**, **Git**, **Bash scripting**, **Vim** and **JUnit**
- Wrote lab assignments for students and graded their lab reports

Linux System Administrator Intern | *Garmin*

June 2022 — Sept. 2022

- Collected logs and metrics from **300+** **Pacemaker** and **HAProxy** servers for more observability
- Employed **Kafka**, **Prometheus**, **Elasticsearch** and **Logstash** with support from **Ansible** and **Puppet** to display log data in **Grafana** dashboard for ease of troubleshooting

Cyber Intern | *CodeDay*

June 2020 — July 2020

- Created phishing campaign with **GoPhish** and **DigitalOcean**, phished 20 employees out of 140 emailed
- Utilized **GVM 11** (vulnerability scanner) to look at vulnerabilities of specific domains

PROJECTS

Rubot | *Github*

- Creating Discord bot that implements reminder functionality and notifies users of class vacancies in **TypeScript** with a **PostgreSQL** server
- Writing Bash scripts to streamline bot deployment

Sheepish — CalHacks 2023 | *Github* | *Project Report*

- Created web game to help voice actors practice by transcribing speech and measuring emotion in voice using AI
- Designed in **Figma** and implemented in **React** with TypeScript

Bartalysis — CodeDay Mentor

- Mentored three students to build public transit application with Django, JavaScript, and SQLite for finding BART routes and mapping them
- Divided responsibilities between mentees with stories on Trello

RESEARCH

Security, Privacy, Usability and Design Lab, Carnegie Mellon University

May 2024 — Current

- Deployed an LLM-based privacy awareness application for AI practitioners with a Python backend and React frontend to a DigitalOcean VPS
- Conducted usability testing interviews with users to gain actionable insights on UX and design
- Planned paper submission in early 2025

SKILLS

Programming Languages: Python, Bash, SQL, TypeScript/JavaScript, HTML/CSS

Tools: Docker/Podman, Jenkins, Clickhouse, PostgreSQL, Grafana, OpenShift, Tekton, Helm, Kafka, Prometheus, Ansible, Github Actions, Jinja2, Vault, Elasticsearch, Kibana, Logstash, Loki, Pacemaker, Figma

Technologies: Linux CLI, Git, Visual Studio Code, Jupyter Notebook, React, Pandas, Numpy, Seaborn