Jay Chong

Resume has been modified for privacy. Please contact me at jaychong@berkeley.edu

Education

University of California, Berkeley — Berkeley, California
BS, Electrical Engineering and Computer Science — *August 2024 – May 2026*

Experience

National Center for Supercomputing Applications — Remote
Cybersecurity Analyst Intern — *August 2024 – Present*

- Conducting vulnerability management using **Qualys** and **Splunk**, integrating advanced threat detection and mitigation strategies. Engineering security hardening practices for **HIPAA**- and **CUI**-compliant systems, networks, data, and services.
- Auditing the existence of over **100+ Service Principals** in **DNS**, service indexes, and **Qualys** reports. Consolidated findings into a structured dataset of **400+ data points** to facilitate the decommissioning of vulnerable, end-of-life servers.

National Center for Supercomputing Applications — Champaign, Illinois
Cybersecurity Engineering Intern — *June 2024 – August 2024*

- Designed and developed a comprehensive open-source tool for aggregating and distributing compromised **SSH keys** via dynamic key revocation lists using **Express.js**, **Next.js**, **PostgreSQL**, and **Libssh**, deployed on **Amazon EC2**.
- Implemented a high-performance **fingerprint validation algorithm** leveraging **ssh-keygen** and advanced regular expressions to extract and validate any SSH key type. This solution supports seamless scalability for large-scale compromised key datasets.

SETI Institute — Mountain View, California
Computation Intern — *January 2024 – June 2024*

- Developed an efficient modeling framework for planetary formation for research purposes. Utilized **Numpy, Matplotlib, and Python3**, to process and generate up to **10,000,000** data points to feed into RADMC3D computation model to produce **50+** images to help SETI scientists study planetary formation
- Contributed to the modification and restructuring of RADMC-3D open source software, creating **high-fidelity models** to simulate wind structures in protoplanetary disks allowing for dense and quality images to be produced.

Skills

Languages: Python3, C++, Javascript, HTML, CSS

Technologies/Developer Tools: VS Code, Git, Slack, Jira, GitHub, PostgreSQL, Postman

Cybersecurity Tools: Nmap, Splunk, Qualys, Wireshark, Metasploit, Powershell, Burpsuite

Projects/Self Learning

Palo Alto Networks & CodePath & picoCTF — February 2022 - Present

- Currently completed around 30+ picoCTF challenges, strengthening skills in cryptography, web exploitation, and general skills
- Developed automation scripts using Palo Alto Networks' **Prisma**, and **Cortex** platforms to enhance threat detection and incident response workflows, significantly reducing manual intervention.
- Applied knowledge of network security protocols, including **IPsec** and **SSL/TLS**, to secure data transmission and network communications.

Virus Totality | Python, Tkinter, Pyperclip — August 2024 - September 2024

- Developed a python application to automatically fetch **VirusTotal** data of any link or hash copied to clipboard
- Used **Tkinter** for a user interface, and formatted data in order to display in an optimized manner

Notion Reminder Bot | Discord.JS, Python, Javascript — December 2022 - February 2023

- Co-developed the Notion Bot, a discord bot that delivers task notifications for over **200+** members in a CS club.
- Built **9** custom slash commands to execute bot commands & integrated error handling and bot optimization.