

WOOHYUN MICHAEL JO

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EDUCATION

B.A. Computer Science | **University of California, Berkeley**
Graduation Term (Projected): Spring 2024
GPA: 3.9 / 4.0

Relevant Coursework | Computer Programs, Computer Security, CalTeach, Data Ethics, Data Structures, Discrete Mathematics & Probability Theory, Database Systems, Machine Structures, Artificial Intelligence, Information Devices & Systems, Machine Learning, Efficient Algorithms & Intractable Problems

SKILLS

Python, Java, C/C++, Go, SQL (MySQL), Apache Hive, HTML/CSS, JavaScript, Docker, Flask, Django, x86 MIPS, Lisp, Creative Cloud

WORK EXPERIENCE

PROOFPOINT | Software Demolition Engineer Intern January — May 2023
Full Stack — Security & Test — Python, CTAF, Docker, AWS, XMPP

- Preventative hacking and framework testing for the Cloudmark Security Platform, a SaaS detection tool for spam, viruses, phishing, and other end-point messaging threats.
- Constructed a centralized and regressive test automation framework for heterogeneous networks and remote devices using XMPP.

TIKTOK | Software Engineer Intern May — August 2022
Backend — Risk Data Mining — SQL, Apache Hive, Python, Pandas DataFrames

- Engineered empirical evaluation metrics to improve antispam precision, eliminate resource waste, and identify faulty rules in TikTok's rule-based business risk detection system.
- Created a visual analysis tool to develop an SOP (Standard Operating Procedure) for batch rule retirement; reduced manual workload—Dorado, Aeolus, Shark—on initiating risk controls on new business.
- Built algorithmic rules to circumvent abusive accounts, fake engagements, spammy redirection, and scraping in ByteDance products and platforms.

FASOO | Software Engineer Intern June — August 2021
Full Stack — Cybersecurity — Python, Django, MySQL, SQLite

- Constructed a user-authenticated Python Flask web application with intentionally hidden security vulnerabilities — Project PyFlaGoat.
- Deployed a securing mechanism to remediate every OWASP vulnerability in PyFlaGoat.
- Tested, implemented, and improved static Python checkers in Sparrow SAST, a static application security tester.

PROJECTS

AccuLimit | git.io/J1kEB August 2021
Personal Project • Python

- Created a Darwin application that protects the host's battery health by modifying the root SMC and limiting the maximum battery charge.

PyFlaGoat | git.io/J1kEz June 2021 — August 2021
Professional Project (Fasoo) • Python, Flask, SQL, HTML5, CSS3, JS

- Developed an intentionally vulnerable Flask application to test, improve, and update Sparrow, an intelligent S/DAST testing engine.
- Integrated an eminent defense portfolio—SonarQube detects 15% of the hidden security flaws of PyFlaGoat that Sparrow can detect.

Genie Music Scrapper | git.io/J1kEV July 2021
Personal Project (Browser Extension) • JS

- Implemented a browser extension that executes JavaScript commands to compile Genie Music playlists into classified plain text lists.

Gitlet | git.io/J1kEA March 2021 — April 2021
Course Project (CS 61B: Data Structures) • Java

- Implemented a version-control system that employs hashed file serialization to mimic some of the basic features of the popular system Git.

RECOGNITION

UPE Computer Science Honor Society | Inductee September 2021 — Present

Cornell-Yonsei Forensics Invitational | Grand Champion July 2018

Global Youth Entrepreneurship Challenge | Winner May 2018