First Last

address
Phone number | email | linkedin

Education

Public School | May 2025 **Cumulative GPA:** 3.525/4.00

Bachelor of Science in Computer Science with a minor in Mathematics

Relevant Coursework: Data Structures and Algorithms, Foundations of Computer Science, Linear Algebra, Discrete Mathematics, Programming and Data Structures, Computer Organization, Introduction to Computer Security

Activities: Cybersecurity Team, Competitive Programming, Tor Node Project

Honors & Awards: Congressional Award Gold Medalist, Random CTF Placements

Work Experience

Product Development Intern | Location

Small Startup Apr 2023 – Present

- Developed a web API using javascript to test pre-configured UDS/Ethernet/Bluetooth tests on physical and simulation vehicles hosted on AWS containers for integration with the (existing tool name)
- Merged newly written code with pre-existing open source software in C and Python order to link up low level CAN traffic from a physical vehicle to container hosted on a web interface accessible from anywhere through the internet
- Created documentation and walkthroughs for vehicle cybersecurity challenges for a paid platform of over 100 active users
- Tested for common threats and vulnerabilities, using tools and techniques for detection and mitigation in local and cloud deployment service environments

Computer Consultant I | Location Aug 2022 – May 2023

Mechanical Engineering Department IT Services (ME-ITS)

- Developed and oversaw an automatic python script to print out proof of sanitization on drives with sensitive user data
- Took charge of completing tickets filed by students and staff on personal/school properties, configuring VPNs, troubleshooting group policy issues, and completing orders through university-approved retailers
- Successfully expanded computer to serve over 100 PhD students and researchers fitted with operating systems and applications

Leadership

(Club Name) Cybersecurity Club | Location Sep 2022 – Present

Title

- Hosted weekly meetings led by other students, industry professionals, and guest speakers on the topic of securing and pentesting systems and products as well as relevant industry standards and challenges
- Reached out to industry professionals and companies regarding sponsorships, CTF involvement, and internal recruiting
- Built and enhanced relevant technical skills through working on Capture-The-Flag (CTF) competitions with other members
- Wrote security challenges for (clubname) CTF, with 1300+ participants attempting and solving the challenges designed and implemented through Docker, GCloud Hosting, and CTFtime

Projects

TestTrojan

- Created an open source ransomware in python for testing and antivirus training related purposes
- Developed an encryptor and a decryptor using the PyCrypto library and the RSA Algorithm
- Completed thorough testing through variety of Windows (7, 10, 11) and Linux (Ubuntu, Debian, Kali) Virtual Machines to verify stability and undetectability
- Compiled binary file detected as malicious by 2/62 antiviruses on VirusTotal

LC2K Assembler

- Developed a C program to take in simple assembly files with limited instructions and produce a machine-readable file
- Added multi-file interpretation of projects and created a linker to combine multiple files into a single executable file
- Created a simulated cache and CPU to be accessed by the program with simulated memory initialization
- Developed a cycle-accurate pipeline implementation of the LC2K, complete with data forwarding and simple branch prediction

Raspberry Pi Home Server

- Hosting a personal Node.js web server and email server run through PM2 and Cloudflare DDNS through nginx
- Dockerized an Alpine Linux VPN server connected to multiple nodes globally acting as a reverse proxy for the webserver
- Simplified all logging and configuration through bash scripts to keep packages up to date and automatic log monitoring
- Configured all necessary security settings through key-based SSH, limiting exposed ports, and utilizing software tools such as Fail2ban and ClamAV

Skills & Interests

Languages: Native-level spoken, reading, and written fluency in English and Korean, basic literacy in Spanish

Programming Languages: C++, Python, Java, mySQL, Shell, HTML, Javascript, Node.js, Cisco CLI

Skills: Network Security, Cryptography, Web Pentesting, CAN bus communication, ISO14229/UDS protocol

Certifications: CompTIA Security+ 601CE