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Aadhithya Kannan

Computer Science / Computational Physics Undergraduate

Education:

University of Texas at Austin (**GPA:** 3.94/4.00) — May 2023
Bachelor of Computer Science & Computational Physics

Work Experience:

Department of Defense – **Emerging Technologies Intern** — 2021
480 hrs
I helped reverse engineer emerging stealth malware strains and identified potential intrusion detection mechanisms for advanced persistent malware. Further, I improved the department's ability to identify and trace ransomware.

TREL (https://texasrocketengineeringlab.com/) – **Responsible Engineer** — 2020
Ongoing
I am currently helping build Halcyon, which is an advanced bipropellant rocket competing in the Base11 challenge to reach the Karman Line. The Simulink 6DOF model for Halcyon was completed under my leadership.

Mistnet (https://www.mistnet.ai/) – **Software Engineering Intern** — 2018
~700 hrs
Mistnet is a stealth startup specializing in machine learning based threat detection. I was given the task of reducing false positives through operating system and network level monitoring. I also aided in real time big data analysis and threat detection utilizing Bro, Osquery, and the ELK stack.

InfiSwift (https://infiswift.tech/) – **Software Development Intern** — 2020
480 hrs
InfiSwift specializes in using AI to maximize the performance of IOT devices. I worked on using Bluetooth Low Energy to accurately trilaterate devices indoors where GPS does not work. This project heavily focused on statistical data analysis, noise reduction, and MQTT. I was able to bring positioning accuracy to the 1 meter realm.

Sandbox Systems LLC – **Co-Founder & CEO** — 2017-2020
~800 hrs
I was in charge of the development of a cloud based IDE. I lead server maintenance, site optimization, virtualization of cloud resources, server cluster networking, and cybersecurity. We ended up earning a 10K seed investment from the Sputnik Accelerator.

Projects:

Logger (Java) – Decrypts and uploads saved Chrome passwords in plaintext.
Venom (Python) – Attempted to regress the AES 128 SBOX with neural networks.
Kolasi (C) – Reverse TCP shell with persistence and process injection capabilities.
Pintos (C) – Expanded OS to support virtual memory, priority scheduling, and a multithreaded file system.
Hospital Communications (RTL-SDR/Nodejs) – Decrypted hospital/EMS pager frequencies.
ACC (Javascript) – Vulnerability allowed unauthorized control of registration system.
Logos (NASM/C) – Built a low level OS with screen, keyboard, and other drivers.
Artemis (Octave) – Neural network attempts to identify indicators of violent behavior.
SoloStarr (Python/GSQL) – Developed TikTok style social media app's recommendation algorithm.

Honors/Awards:

DECA Finance ICDC (Highest test score in state and represented the United States internationally). — 2015-2018

Relevant Coursework

Computer Security, Data Structures, Discrete Math, Operating Systems, Computer Architecture, Computer Networks, Computer Algorithms, Quantum Computing, Waves & Optics, Vector Calculus, Linear Algebra, Classical Dynamics