Nathaniel Simmons

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Education

University of Texas at Dallas Richardson, TX

M.S. Computer Science NSF CyberCorps: Scholarship for Service - GPA: 3.850 August 2023 - Present

- Cybersecurity Concentration Track Expected Grad May 2025
- Coursework: Information Security, Language-Based Security, Binary Analysis

B.S. Computer Science Cum Laude - GPA: 3.837 August 2019 - May 2023

- Dean's list recipient, Academic Excellence Scholarship Recipient
- Coursework: Algorithms and Data Structures, Databases, Machine Learning, AI

Certifications

CompTIA - Security+ Certification April 2024

Skills

Cybersecurity: Reverse engineering, Web exploitation, Cryptography, Forensics, Malware analysis

Tools: IDA, Ghidra, WireShark, PWN, Burp Suite, CAN Bus, UART, VMs, REMnux, Kali

Languages: Java, C/C++, Python, Bash, Assembly, SQL, HTML, CSS, XML

Experience

Lawrence Livermore National Laboratory May 2024 - Current

Cybersecurity Graduate Intern

- Reverse engineered programmable logic controller in a collaborative team environment using Binsync
- Performed static and dynamic malware analysis using REMnux on a closed VM network

UTD Software and Systems Security Laboratory January 2024 - May 2024

Cybersecurity Researcher

- Integrated a vulnerability scanning application into drone simulation software
- Utilized multiple data points from the scan to initiate a vulnerability test

Wyzant December 2020 - July 2023

Private Java Tutor

- Tutored dozens of students in a remote capacity totaling to ~400 hours of instruction
- Formulated lesson plans for topics such as algorithms, software design, and API implementation

Projects

Bluetooth Android Application Spring 2023

- Designed and developed a multi-threaded back end in Java/XML for tracking student attendance
- Mentored and led a team of five developers, resulting in a MVP application release

Distributed Mutual Exclusion Implementation November 2023

- Programmed a distributed system of nodes that communicate using TCP sockets in Java and Bash
- Implemented Roucairol and Carvalho's resource mutual exclusion algorithm with vector clocks

Role-Playing Game Engine 2022

- Designed and developed full stack RPG system using three layered architecture in Java
- Programmed graphical user interface and database system from scratch in Java
- Features include procedural game generation and scaling of entities based on player progression

Activities

UTD Computer Security Group Competitive CTF team – top 11% USA August 2023 - Current

Toyota Hackfesta CTF September 2023 - October 2023

Eagle Scout - Boy Scouts of America February 2019 – Current