

Nathaniel Simmons

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Education

University of Texas at Dallas

M.S. Computer Science NSF CyberCorps®: Scholarship for Service - GPA: 3.799

- Cybersecurity Concentration Track
- Coursework: Information Security, Networks, Advanced Operating Systems

Richardson, TX
August 2023 - Present
Expected Grad May 2025

B.S. Computer Science Cum Laude - GPA: 3.837

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

August 2019 - May 2023

Skills

Cybersecurity: PWN, Burp Suite, Ghidra, WireShark, CAN Bus, UART, VMs

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

Projects

Attendance Tracker

Senior Capstone Project, Spring 2023

- Planned a multi-threaded Android Bluetooth client/server application in Java
- Blueprinted and programmed back end for the system's graphical user interface with Java/XML
- Coordinated a five person team, delegating responsibilities for developing the application

Distributed Mutual Exclusion Implementation

Course Project, 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 System

Personal Project, 2022

- Designed graphical user interface and database system from scratch in Java
- Conceived a three-tiered software design with presentation, service, and data layers with UML
- Devised procedural game generation with algorithmic enemy and item scaling

Experience

Cybersecurity Researcher - UTD Software and Systems Security Laboratory

January 2024 - Current

- Programmed sensor spoofing attack simulations in python and c++ using Gazebo flight sim and PX4
- Implemented fuzzing on sensor input hyperparameters to determine optimal attack designs

Private Java Tutoring - Wyzant

December 2020 - July 2023

- Responded to student requests, scheduled lessons, and formulated lesson plans
- 400 hours tutored with dozens of students from across the country
- Instructed primarily on dynamic programming, algorithms, and implementing APIs and libraries

Data Analysis Intern - Covetly

July 2021

- Utilized Excel and pivot tables in order to analyze and make inferences on 400,000 records of sales data
- Compiled and presented reports to supervisor to determine advertising decisions

Activities

- CompTIA Security+ - To be completed April 2024
- UTD CSG Competitive CTF team - 29th in the US
- Toyota Hackfesta
- Eagle Scout - Boy Scouts of America

August 2023 - Current
September 2023 - October 2023
February 2019 - Current