Carson Hedrich

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Education

Georgia Institute of Technology

Anticipated Graduation May 2026

Current GPA: 3.82

B.S. Computer Science

Relevant Coursework: Perception & Robotics, Systems and Networks, Design & Analysis of Algorithms,

Information Cybersecurity, Embedded Systems Design

Experience

STEP Intern Summer 2023

Google – US-NYC-9TH

- Worked as part of a pair to significantly extend the back-end and front-end functionality of a feature that provides information into an advertiser's performance.
- Utilized asynchronous programming, unit testing, end-to-end testing, and debugging.
- Participated in software development life cycle by writing design documents, implementation, going through design reviews, and preparing for launch.
- Full stack development, using Java, Dart, CSS, and Mockito.

Skills

Technical Skills: Java, C++, C, Python, Assembly, Dart, CSS, JavaScript Cybersecurity Skills:

- Malware Analysis using IDApro/Ghidra, Ollydbg
- Digital Forensics using Autopsy
- Common exploits including SSRF, CSRF, XSS, SQL injection, reverse shells, privilege escalation
- Tools including ffuf, Gobuster, Hydra, Nmap

Projects

Information Cybersecurity Semester Project

Fall 2024

- Investigated a simulated computer of a fake suspect for signs of illegal activity using **Autopsy**.
- Examined a wide array of clues from the suspect, including messages hidden using steganography, obfuscation, suspicious web activity, and network packet traces.
- Exploited vulnerabilities in the simulated websites to gain more information and gain proof of the suspect's guilt.

Reverse Malware Engineering Project "Harulf"

Spring 2025

- Performed static and dynamic analysis on a packed/encrypted virus to determine its method of infection and purpose
- Applied sandboxing and debugging techniques to safely unpack the virus using **Ollydbg**, extract the unencrypted binary, and analyze it using **IDApro**.
- Conducted assembly-level analysis of the Windows PE file to discover polymorphic capabilities of the virus, which could be used to improve threat definitions.

Extracurriculars

Member | Video Game Development Club Georgia Institute of Technology

September 2023 - Fall 2024

- Developed original games as part of a team, with each game project taking place over the course of a semester.
- Implemented core game systems, including character controls, user interface, and game mechanics to create a smooth gameplay experience.
- Managed project deadlines while including feedback from project leads on my work.