Jackson McCullough

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Summary

Student at Indiana University Kokomo, graduating in December, 2026. Dedicated to pursuing a career in cybersecurity with a focus to become a Security Engineer.

Education & Certifications

Indiana University Kokomo, B.S. in Computer Science, Minor Mathematics Aug 2023 – Dec 2026

Certifications: CompTIA Security+, Cisco Certified Network Associate (CCNA), Google Cybersecurity Professional, ISC2 Certified in Cybersecurity (CC)

Working Towards: CompTIA SecurityX (CASP+), M.S in Cybersecurity and Information Assurance, publication to Elsevier's "Ad hoc Networks" journal

Experience

Systems Security Engineer Intern , V2X – Indianapolis, IN May 2026 – Current

- Designed and implemented web security capabilities and enhanced performance for the Gateway Missions Router (GMR), contributed to software development and testing efforts, and led intern-driven projects through planning, execution, and delivery on tasks that are in working production of the GMR

Security Researcher,Indiana University Kokomo – Kokomo, IN Jan 2025 – May 2026

- Conduct and present ongoing research on applying game-theoretic approaches and solutions to enhance the cybersecurity of unmanned aerial systems (UAS's) and theoretically justify best solutions, with Dr. Aakif Mairaj (Supervisor)

Assistant/Lead instructor, BlackRocket Organization – Indianapolis, IN May 2025 - Aug 2025

- Teaching web development(HTML/CSS/JavaScript), video game development (Godot) to kids ages 6-12

Programming tutor,Indiana University Kokomo – Kokomo, IN Jan 2025 – May 2026

- Help students in a one-on-one environment with programming. Specializing in java, but also help with PHP, Python, SQL
- Return on individual assignments resulted in B+ or higher on every assignment I personally helped with

Projects(Full Reports on Website)

Inline Security Gateway for Legacy MIL-STD-1553 Avionic Buseswwwwwa www.jacksonxsec.com

- Designed and implemented a real-time, hardware-level "bump-in-the-wire" security gateway using an STM32 Nucleo board to protect legacy, unencrypted MIL-STD-1553 avionic buses. The system enforces state-aware validation, transaction timing inspection, and command sequence verification to successfully mitigate unauthorized remote terminal injections in a simulated Bus Controller (BC) and Remote Terminal (RT) environment.

Network Security & Infrastructure Lab

- Built and administered a multi-network cybersecurity lab featuring VLAN segmentation, firewall rule management, ACL enforcement, traffic analysis (with Splunk), and secure service deployment to develop hands-on experience with enterprise network security controls

Website Security Management

- Designed and developed a full-stack web application for a small business, integrating industry-standard security practices such as MFA, TLS-encrypted communications, Argon2 credential hashing, access controls, and secure data handling to protect user and payment information

Malware Analysis & Reverse Engineering

- Used multiple tools popular in the security world in a self-hosted malware lab to statically and dynamically analyze different malware

Vulnerability Management for a Target Machine

- Conducted machine vulnerability assessments using Nessus, and nmap, while also giving possible solutions for each vulnerability, with the best way to manage them

Brute-Force Attack Detection using Splunk & Fail2ban

- Launched a simulated brute-force attack using hydra, detected with splunk enterprise(and created visualizations for a dashboard), and created rules and filters using fail2Ban

Creation, Detection, and Defense against Ransomware

- Personally created ransomware that encrypted "sensitive files" on an endpoint. Detected the attack, contained, and eradicated the attack using SIEM and application control tools such as Wazuh and Windows Defender Application Control (WDAC).

Technical Skills

Languages: C/C++, PHP, Java, Python, SQL, JavaScript, HTML, Bash

Tools: Suricata, Nessus, Splunk, Wireshark, Nikto, Wazuh, nmap, Packet Tracer, and related pentesting & forensic tools.

Operating Systems: Windows; Linux distributions including Kali, Ubuntu, Debian, and REMnux (specialized for malware analysis & forensics)

Leadership & Involvement

IU Kokomo Esports(Captain): Captain of the Rocket League team since freshman year, creating game plans and strategies that have led the team far into playoffs each season, nearly undefeated each season

Computing club(Vice President): Responsible for creating example projects, teaching languages, and providing hands-on support to members for their projects or activities they are participating in

Association of Student Athletes (ASA): Nominated as an athlete to represent Esports on ASA. Responsible for creating activities and events that bring the community and sports at IUK together. As well as finding way to tie all sports together to create a stronger athletic community

School of Sciences Student Advisory Board: One of five students selected by the Dean of Students to represent the School of Sciences, with the responsibility to advocate for peers and propose initiatives that improve student life

Undergrad Research Grant Recipient: 2x recipient of the undergraduate research grant at IUK. This is given to students conducting innovative research in their field with a promising outcome

IU Regionals at the Rotunda Presidential Presenter: Nominated to speak at the biggest conference for IU regional campuses. Voted to be the one person out of IU Kokomo to speak with the president of IU about their research and discuss the current status of the School of Sciences

Techpoint XTERN Member: A part of Indiana XTERN program summer of 2026

Chancellor's events: Presented research and engaged with the Chancellor, Vice President, and university leadership through advisory boards, meetings, and special events to discuss campus life and student experiences