

Crystal Morell

crystalmorell8@gmail.com | (434) 713-2060 | LinkedIn

EXPERIENCE

IoT Cybersecurity Extern

Jan 2026 – Present

Hydroficient

- Analyzed IoT system architecture and performed STRIDE threat modeling to identify and mitigate vulnerabilities in the HydroLogic platform.
- Built MQTT-based data pipelines using Python and Docker, optimizing data flow efficiency and reliability by 20%.
- Implemented TLS encryption and device certificate authentication to secure IoT communications and ensure data integrity.
- Designed a real-time security monitoring dashboard using Streamlit with LLMs to visualize pipeline health and security alerts.

Prompt Engineer

Nov 2025 – Present

Handshake

- Optimized AI prompting and analyzed data to refine algorithms serving a user base of 20 million.
- Improved Large Language Model (LLM) outputs by reviewing data and determining optimal AI responses.
- Tagged and labeled videos and images, contributing 30% to the development of more accurate machine learning datasets.

Cybersecurity and Network Security Analyst Intern

Sep 2024 – May 2025

I.R.D.I. Business Group, LLC

- Led incident response efforts using SHODAN for real-time monitoring of security incidents, reducing global network breaches by 70%.
- Created and enforced security policies to strengthen organizational security frameworks, collaborating with international IT teams.
- Utilized pcap files and Wireshark to analyze threats and contribute to the reduction of network vulnerabilities.
- Maintained current knowledge of emerging security threats, proactively implementing practices to mitigate risks.
- Assisted in creating and maintaining comprehensive security documentation to support compliance and best practices.

Technical Program Manager Intern

2025 – 2026

Ellington Cyber Academy

- Coordinated end-to-end program delivery for cybersecurity training initiatives, managing timelines, milestones, and stakeholder communications across cross-functional teams.
- Developed and maintained project tracking documentation including roadmaps, status reports, and risk registers.
- Facilitated weekly program syncs with instructors, curriculum designers, and leadership to remove blockers and drive accountability.
- Assisted in designing onboarding workflows and SOPs for new program cohorts, reducing ramp-up time for participants by 25%.
- Collaborated with technical leads to track KPIs and program outcomes, producing data-driven reports presented to senior stakeholders.

PROJECTS

Linux SOC Analyst Investigation Lab

- Investigated SSH brute-force attacks by analyzing Linux authentication logs and identifying over 500 failed login attempts.
- Correlated security events to identify attacker source IP addresses and assess attempted unauthorized access.
- Conducted packet analysis using Wireshark to identify malicious traffic patterns and indicators of compromise (IOCs).
- Mapped attacker techniques to the MITRE ATT&CK Framework, including Brute Force, Remote Services, and Service Discovery.
- Produced detailed incident response reports documenting findings, containment recommendations, and remediation strategies.

End-to-End SOC Analyst Home Lab

- Built a simulated enterprise SOC environment using VMware and VirtualBox.
- Configured Splunk to ingest Windows Event Logs, Syslog events, and firewall telemetry.
- Created custom dashboards, alerts, and correlation rules for threat detection and monitoring.
- Performed full incident investigations including triage, root cause analysis, containment, documentation, and response activities.

SKILLS

Security Operations: SIEM, Splunk, Incident Response, Threat Detection, Log Analysis, MITRE ATT&CK, Cyber Threat Intelligence, SHODAN, STRIDE Threat Modeling

Web Development: HTML5, CSS, JavaScript, MongoDB Atlas, Visual Studio

Programming Languages: Python, Java, Core Java, C++, Streamlit

Networking and Infrastructure: Network Security, Wireshark, Firewalls, Tcpdump, Nmap, MQTT, TLS/SSL, Linux/Unix, Windows Server, VMware, Docker

Security Tools: Hydra, Ghidra, Metasploit, Burp Suite, OWASP ZAP

Identity and Access: IAM, OAuth, Cryptography

Data and AI: Google Colab, MySQL Workbench, Microsoft SQL Server, Data Analysis, AI Prompting, LLM Optimization, Machine Learning Dataset Labeling

EDUCATION

Liberty University

Bachelor of Science, Information Technology: Data Network and Security.

May 2026

CodePath

Certificate in Cybersecurity.

February 2023