

Adam Ben Hmida

Undergraduate Student Researcher

Baton Rouge, LA, United States | [LinkedIn](#) | [GitHub](#)

Computer Science and Cybersecurity student at Louisiana State University with hands-on experience in malware analysis, penetration testing, and LLM security applications.

EXPERIENCE

Red Team Security Analyst LSU Cybersecurity Clinic Conducted in-depth cybersecurity audits for three small businesses in Louisiana, performing penetration tests using industry-standard tools including Nmap, Metasploit, and Hashcat. Delivered seminars to small business owners on cybersecurity best practices and threat mitigation strategies.	Jan 2025 — Present <i>Baton Rouge, LA</i>
Undergraduate Research Assistant Louisiana State University Co-authored "Obfuscation in the Wild", an empirical study of obfuscation techniques across 10,000 real-world malware samples using a static/dynamic dual-pipeline analysis (SSRN preprint, under review). Contributed to MARS, a CNN-based IoT malware classifier that reached 100% F1 (DFRWS USA 2024, peer-reviewed). Built an LLM-based malware obfuscator and a training pipeline to fine-tune LLaMA 3.1.	Aug 2024 — May 2025 <i>Baton Rouge Metropolitan Area</i>
LLM Contractor Workday LSU Developed security features using Django Middleware to prevent OWASP10 vulnerabilities in web applications. Improved application scalability by implementing asynchronous processing to handle concurrent requests more efficiently.	Aug 2024 — Dec 2024 <i>Baton Rouge, LA</i>
Systems Analyst Intern McIlhenny Company Automated manufacturing processes using SQL and Unix scripting to improve operational efficiency. Managed company security infrastructure using Cisco security suite, Carbon Black, and ExtraHop. Configured and deployed approximately 200 machines for end users, managing BIOS settings and company policy compliance while conducting incident response activities to protect company assets.	Jun 2024 — Aug 2024 <i>Avery Island, LA</i>
Co-Founder & COO Geaux Rally, Inc. Co-founded a college-focused social media platform that secured partnerships with 20+ client organizations and is currently raising a \$350K seed round. Implemented Firebase security rules and application security controls to protect user data while ensuring compliance with OWASP10 standards.	Apr 2024 — May 2026 <i>Baton Rouge, Louisiana, United States</i>
Undergraduate Student Researcher LSU CCT Developed an LLM Obfuscator prototype that obscures shellcode using XOR and base64 encoding to analyze malware behavior patterns. Built a malware dataset using Tigress and real-world samples from VirusTotal to train LLaMa 3.1 models. Analyzed IoT device memory dumps with CNN models achieving 100% F1 score for malicious activity detection. Research was peer-reviewed and published to DFRWS USA 2024.	Jan 2024 — Present <i>Baton Rouge, LA</i>
Worker Red Lerille's Health & Racquet Club Inc.	Apr 2022 — Aug 2022 <i>Lafayette, Louisiane, États-Unis</i>

EDUCATION

Louisiana State University <i>Bachelor of Science - BS in Computer Science with Cybersecurity concentration</i> GPA: 3.7/4.0, Major GPA: 4.0/4.0. LAspace GPS Scholar, LSU Academic Excellence Scholarship, Dean's List, Presidents Honor Roll, IBM AI/Security Bootcamp Certificate, DFRWS 2024 Participant.	Aug 2022 — May 2026
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PROJECTS

CNN-based intrusion detection system for IoT memory analysis , IDS for General IoT Devices Developed CNN model using librosa to analyze memory dumps from IoT devices and classify them as malicious or benign. Paper titled MARS: The first line of defense was published to DFRWS 2024. Currently optimizing TCP server scripts to reduce latency in memory dump processing through router infrastructure.
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SKILLS

Cyber Security Risk · Retrieval-Augmented Generation (RAG) · Local LLMs · Machine Learning · Business Development · Operations Management · Strategic Planning · Red Teaming · Collaborative Problem Solving · Cross-team Collaboration · Consulting · Large Language Models (LLM) · LLaMA · Network Security Implementation ·
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Convolutional Neural Networks (CNN) · Python (Programming Language) · Internet of Things (IoT) · Information Security · Java · Computer Science · Cybersecurity · Communication · Network Security · Problem Solving · Microsoft Office · Software Development · Data Structures · C · SQL · Dart · Ghidra · IDA Pro · BurpSuite · Jira · Git · Kali Linux · Carbon Black · ExtraHop · Wireshark · Malware Analysis · Reverse Engineering · Penetration Testing · Django · Firebase · OWASP10 · Incident Response · Unix Scripting