Mohamed Elsaban

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TECHNICAL SKILLS

Languages: Python, Java, JavaScript, C/C++, HTML, CSS
Technologies: Node.js, Express.js, Flask, AWS Basics
Developer Tools: Git, Docker, MySQL, VS Code, IntelliJ, Microsoft Office suite
Cybersecurity & Intelligence Tools: OSINT Framework, theHarvester, Shodan, Hashcat, John the Ripper, Wireshark, Nmap, Burp Suite, Metasploit Framework, Kali Linux

EXPERIENCE

Risk Management Coordinator   Oct 2024 – Present
Office of Risk Management, Carleton University   *Ottawa, ON*
- Collaborated with **cybersecurity leadership** to interpret frameworks and streamline notification processes, fostering a stronger incident response strategy.
- **Developed cybersecurity incident notification guidelines** by conducting in-depth research and utilizing propositional logic to align official reports with Carleton University's unique environment.
- Proactively engaged with the Computer Security Division at the **National Institute of Standards and Technology** (NIST) to gather insights on frameworks, ensuring alignment with industry best practices and tailoring solutions to organizational needs.
- Leveraged **targeted investigations** using OSINT Framework to gather specific information, supporting decision-making and enhancing notification methods.
- **Handled sensitive data** with discretion and professionalism while supporting risk management initiatives.

Communications Security Engineer   Jan 2024 – Present
CU On Orbit (Satellite Design Team)   *Ottawa, ON*
- Collaborated with a 30-person multidisciplinary team in a Concurrent Design Facility (CDF).
- Prepared a CDF report on encryption strategies meeting government compliance.
- Researched RSA digital signatures for secure satellite-ground communication.
- Performed ethical LoRa signal interception simulations using SDR to identify vulnerabilities.

PROJECTS

Offline Post-Breach Password Cracking Simulation (Ethical)   Winter 2025
Self-Directed Cybersecurity Project
- Conducted an ethical offline password audit, simulating a realistic post-breach attacker scenario over two months.
- Acquired real-world bcrypt hashes using **DeHashed**, leveraging OSINT and publicly available breach data.
- Cracked bcrypt hashes via dictionary attacks using **Hashcat** and **cupp**, optimizing wordlists for efficiency.
- Explored GPU acceleration, password entropy considerations, and practical limitations of password hashing.

Email Spoofing & DMARC Misconfiguration Analysis   Spring 2025
Self-Initiated Cybersecurity Case Study — Carleton University Domain
- Discovered ability to spoof @carleton.ca emails due to p=none DMARC policy.
- Observed Gravity Forms on WordPress allowing unverified "From" emails to bypass SPF/DKIM checks.
- Analyzed DNS records and email headers using MXToolbox and Outlook tools.
- Developed a case study report highlighting the risk and outlining SMTP authentication and DMARC enforcement as potential mitigations.

EDUCATION

Carleton University   Sep 2023 – Apr 2028
Bachelor of Computer Science Co-op (Cybersecurity)   *Ottawa, ON*
- President's Scholarship.

Relevant Coursework: Programming in Python, Programming in Java (OOP), Systems Programming, Web Applications, Cryptography, Symbolic Logic, Data Structures, Discrete Math, Software Engineering