# SHOWREN CHOWDHURY

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Portfolio: https://showrenchowdhury.vercel.app/ • Github: github.com/ShowrenChowdhury21

*Cybersecurity Analyst* | *SOC Analyst* | *Security Engineer*

Experienced in security threat analysis, system monitoring, malware investigation, and incident response. Strong background in network security, risk assessment, and regulatory compliance. Proficient in detecting malicious activity, automating security tasks, conducting system analysis, and using AI to enhance threat detection and intelligence.

## EDUCATION

**Concordia University** Montreal, QC, Canada**.** **September 2023 – April 2025**
**Master of Engineering in Information Systems Security.**

## SKILLS

**Security Tools:** YARA | Wireshark | Suricata | Metasploit (Penetration Testing) | Splunk (SIEM & Log Analysis) | CrowdStrike Falcon (EDR) | Okta (SSO & IAM).
**Cybersecurity & Threat Intelligence:** Threat Detection & Incident Response (SIEM, IDS/IPS) | Malware Analysis | Network Traffic & Protocol Analysis | Security Hardening & Compliance (NIST, CIS Benchmarks) | Firewall Configuration | SOC Operations | Threat Hunting | Phishing Analysis | SOAR | Cyber Kill Chain | MITRE ATT&CK**.**
**Programming & Scripting:** Python | C# | SQL | Bash | PowerShell.
**Environments & Platforms:** Windows | Linux | Docker | AWS | VMware.
**Others:** Security Audits | Vulnerability & Risk Assessment | System Administration | Technical Documentation | Compliance Assessment | Research & Analysis.

## PROFESSIONAL EXPERIENCE

**Software Engineer II, AiTrade INC.** **July 2021 – January 2023**
Orlando, Florida, US

- Integrated secure crypto APIs into trading applications using Agile methodology, improving transaction security and client trust across high-speed financial systems.
- Secured backend infrastructure (Symfony, MySQL, PostgreSQL) by implementing access controls, encryption, and vulnerability mitigation, reducing audit findings by 30%.
- Hardened Docker container images using security best practices, decreasing exposure by 35% and remediating three critical misconfigurations.
- Implemented secure RabbitMQ messaging with TLS and authentication, enhancing data-in-transit protection and reducing API communication risks by 40%.
- Recognized and promoted within four months for leading secure deployment initiatives, reducing release errors by 20%, and improving team collaboration on risk-aware delivery workflows.

## PROJECTS

**Enhanced YARA with ML for Advanced Malware Detection. (Github)** **March 2024**

- Strengthened zero-day malware detection accuracy by 30% using a YARA-based machine learning model and leveraged advanced behavioral analysis to improve threat recognition.
- Developed machine learning models to detect unusual malware activity, increasing threat classification accuracy and response efficiency by 15%.
- Identified and resolved three key factors causing delayed threat detection, optimizing malware identification efficiency.

**Oracle Padding Attack on RSA. (Github)** **April 2024**

- Conducted a simulation of the Oracle Padding Attack on cryptographic implementations, identifying three major flaws in the system architecture.
- Performed Cryptographic Analysis to evaluate RSA encryption weaknesses, leading to critical security updates and improved cryptographic resilience.
- Simulated real-world attack scenarios, demonstrating hands-on expertise in identifying and mitigating cryptographic vulnerabilities.

## CERTIFICATIONS

**Google Cybersecurity Professional Certificate, Coursera -** March 2025 **(Certificate) | CompTIA Security+ -** Expected May 2025 **| Let's Defend - SOC Analyst Path -** Expected April 2025**.**