Brian Grigore

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SUMMARY

Computer Science graduate with **2+ years of experience** developing software for defense and financial sectors. Experienced in **embedded systems**, **cybersecurity**, and **process automation**, with a track record of successful hackathon participation including Hack The North's Best Overall award.

Focused on **secure software development** and **system optimization**, with hands-on experience in C/C++, Python, and DevOps practices. Certified in Cybersecurity (ISC²) with practical knowledge of threat detection, network security, and compliance frameworks including MITRE ATT&CK.

EXPERIENCE

L3Harris WESCAM   Hamilton, ON, Canada
Software Developer (Co-op)   May 2023 – Aug 2024

- Architected and delivered mission-critical embedded software for multi-million dollar Intelligence, Surveillance, and Reconnaissance (ISR) systems on Xilinx Zynq/UltraScale+ platforms using C/C++ and embedded Linux, serving defense customers in high-stakes operational environments.
- Designed and implemented automated provisioning pipeline using Python and Xilinx toolchain integration, achieving 75% reduction in manual deployment time (3+ hours saved per system) and scaling across 50+ production systems.
- Led cross-functional DevOps transformation initiatives, containerizing development workflows with Docker and orchestrating infrastructure provisioning with Ansible, driving 40% improvement in team productivity.
- Developed zero-defect production code with 99.9% uptime requirements, managing complex embedded systems while maintaining strict quality standards for defense applications.
- Integrated automation solution into Jenkins CI/CD infrastructure, establishing scalable processes that reduced production labor costs and improved deployment reliability across department-wide workflows.

Manulife Investment Management   Toronto, ON, Canada
Information Security Analyst Intern   May 2022 – Aug 2022

- Strengthened enterprise cybersecurity infrastructure for $800B+ assets under management through automated security compliance and risk assessment optimization across 200+ enterprise websites.
- Engineered automated risk assessment workflow using Python and JIRA APIs, reducing security intake processing time by 60% (1+ hour per request) and streamlining cross-team collaboration through integrated tooling.
- Developed Python-based security compliance automation framework scanning for vulnerabilities and achieving 125% of annual compliance targets through proactive vendor engagement and remediation tracking.
- Optimized Akamai CDN configurations for enterprise web properties, improving page load times by 35% and reducing bandwidth costs through enhanced caching strategies and performance tuning.
- Implemented comprehensive security monitoring and reporting systems, enabling proactive threat detection and compliance verification across distributed web infrastructure.

EDUCATION

Queen's University
Bachelor of Computing (Honours), Computer Science

Kingston, ON, Canada
2021–2025

- Specialized in cybersecurity, embedded systems, and AI/ML applications with focus on secure software development practices.
- Relevant Coursework: Cybersecurity, Embedded Systems, Machine Learning, Network Security, Software Engineering, Data Structures & Algorithms.
- Maintained strong academic performance while competing in 10+ hackathons, achieving 70% win rate including major awards.

ISC² Certified in Cybersecurity (CC)
Cybersecurity Fundamentals & Best Practices

Professional Certification
Issued 2024

- Comprehensive certification covering security principles, business continuity, access controls, network security, and security operations.
- Demonstrates foundational knowledge in cybersecurity frameworks, threat detection, and incident response methodologies.

KEY PROJECTS & ACHIEVEMENTS

Network Sniffing Detector (macOS)
Winner: CSE Threat Detection Challenge (QHacks 2024)

Python, Docker, Howler
2024

- Developed production-grade threat detection system identifying network reconnaissance attacks on macOS, implementing MITRE ATT&CK T1040 defensive strategies with real-time alerting.
- Architected scalable security testing infrastructure using Docker containerization and Atomic Red Team automation for validation testing.
- Achieved 95%+ detection accuracy against MITRE ATT&CK techniques through advanced system-level monitoring and behavioral analysis capabilities.
- Integrated with Howler API for centralized security operations center (SOC) alerting, demonstrating enterprise-grade security monitoring capabilities.

DigiSpotter
Winner: Best Overall (Hack the North 2022)

Swift, ARKit, Firebase
2022

- Created iOS app using Apple ARKit for real-time biomechanical analysis and automated form correction with 90%+ accuracy in exercise tracking.
- Implemented custom skeletal tracking algorithms on ARKit framework, processing 60fps motion data for instant feedback on form and technique optimization.
- Developed full-stack architecture with Firebase backend for cloud-synchronized workout analytics, automated rep counting, and intelligent rest period management.
- Optimized real-time computer vision processing for mobile hardware constraints, maintaining 60fps performance on mid-tier devices.

Discord Learn
Winner: Best Discord Bot & Wolfram Alpha Award (RU Hacks 2021)

Python, discord.py, Google Calendar API
2021

- Engineered enterprise-grade educational automation platform transforming Discord servers into feature-rich virtual learning environments with single-command deployment.

- Implemented automated classroom setup (roles/channels/permissions) with OAuth 2.0 authentication flow and Google Calendar API integration for seamless adoption.
- Added advanced features including attendance tracking, breakout rooms, and automated scheduling, demonstrating scalable educational technology solutions.
- Created comprehensive bot framework handling complex permission scopes and secure token management for educational institutions.

Bank Statement Encryption (BSE) Protocol Flutter, Dart, Android Studio

Winner: Scotiabank Award & 1517 Grant (UofTHacks VIII) 2021

- Developed revolutionary mobile security framework implementing hardware-backed encryption and biometric authentication for financial document protection.
- Architected end-to-end security solution addressing critical vulnerabilities in mobile banking applications and financial data transmission.
- Received recognition for innovative cybersecurity implementation in banking sector and unique approach to financial document security.
- Demonstrated practical application of advanced cryptographic techniques in consumer-facing financial technology applications.

SKILLS

Technical Core

- **Languages:** Python, C/C++, Java, Swift, Bash, Dart; JavaScript, TypeScript (Familiar)
- **Frameworks:** ARKit, Firebase, Flask, discord.py, React, Docker, FastAPI; TensorFlow, PyTorch (Familiar)
- **DevOps & Cloud:** Docker, Jenkins, Ansible, Git, CI/CD pipelines; AWS, GCP, Kubernetes (Familiar)
- **Databases:** PostgreSQL, MySQL, Firebase, Redis; MongoDB, Elasticsearch (Familiar)

Hardware & Embedded

- **Platforms:** Xilinx Zynq/UltraScale+, ARM Cortex, Embedded Linux, RTOS
- **Integration:** PCB Design, System Integration, Hardware Testing, Power Management, Sensor Integration

Domain Expertise

- **Cybersecurity:** Threat Detection, Network Security, MITRE ATT&CK Framework, Vulnerability Assessment, Security Compliance
- **Defense & Aerospace:** Mission-Critical Systems, ISR Platforms, Embedded Software, Real-Time Systems, Safety Standards
- **AI/ML Applications:** Computer Vision, ARKit, Machine Learning, Automated Detection, Real-Time Processing

Innovation & Leadership

- **Hackathons:** 7/10 Win Rate, Hack The North Best Overall, Technical Innovation, Rapid Prototyping
- **Process Optimization:** Automation Development, Cost Reduction (75%), Workflow Improvement, DevOps Transformation
- **Security-First Development:** Secure Coding Practices, Compliance Implementation, Risk Assessment, Threat Modeling