Nathan Sta Monica

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Education

Carleton University Ottawa, ON
Honours Bachelor of Science in Computer Science and Cybersecurity *September 2023 - April 2028*

Experience

Cybersecurity Analyst May 2026 – August 2026
Royal Canadian Mounted Police *Ottawa, ON*

- Engineered a serverless **Azure Logic App** utilizing a custom **PowerShell** script to query the **NVD API** and parse **JSON** responses, automating daily vulnerability tracking, saving the team 10 hours weekly and accelerating triage of CVSS threats.
- Investigated and mitigated coordinated phishing campaigns by detonating malicious links and payloads via **VirusTotal**, **urlscan**, and **FortiSandbox**, isolating compromised endpoints to prevent enterprise credential theft.
- Triaged High/Medium security alerts across hybrid cloud and on-premise **FortiSIEM** environments, operationalizing CSOC (Cyber Security Operations Centre) threat intelligence to rapidly mitigate active DDoS attempts and network anomalies.
- Investigated User and Entity Behaviour Analysis (**UEBA**) anomalies, including suspicious sign-ins, brute-force attacks, and international travel risks, to mitigate immediate operational threats and compile **weekly** activity statistics for Management.

Network Operations Specialist May 2025 – May 2026
Shared Services Canada *Ottawa, ON*

- Conducted proactive telemetry monitoring and automated infrastructure health audits across **Linux** and **Windows** servers, sustaining **99.9%** system availability to prevent mission-critical service outages for national public safety operations.
- Diagnosed and resolved complex Tier-2 operational incidents using **RCMP Service Desk Manager** and **Moshi**, reducing average resolution time by **18%** to accelerate service restoration and eliminate escalation backlogs into Tier-3 engineering teams.
- Standardized escalation workflows in **Spectrum** and drafted technical SOPs, cutting handoff times by **5%** to accelerate MTTR.
- Refactored a multi-tier container stack (**Nginx**, **PHP**, **MariaDB**) from **Docker** to rootless **Podman**, resolving complex **LDAP** authentication constraints to successfully migrate **all** target workloads into an air-gapped environment.

Junior Web Developer February 2025 – May 2025
Correctional Services Canada *Ottawa, ON*

- Engineered and integrated secure **RESTful API** endpoints across distributed microservices to standardize **JSON** exchanges, driving endpoint response times below **200ms** to eliminate synchronization bottlenecks between legacy systems.
- Refactored legacy **GUI** components using semantic **HTML5**, responsive **CSS3**, and vanilla **JavaScript**, achieving first-pass **UAT** sign-off and eliminating high-priority front-end accessibility defects.
- Orchestrated enterprise migration pipelines for the **D2L Brightspace** LMS platform, transferring **600+** courses and **17,000+** user profiles with **complete** data integrity to prevent service disruption during nationwide deployment.

System Analyst Intern May 2024 – December 2024
Canada Revenue Agency *Ottawa, ON*

- Developed and maintained cross-platform enterprise middleware using **Java**, **JavaScript**, and **SAP** APIs, decreasing system synchronization errors by **27%** to guarantee uninterrupted data flow across core internal operations.
- Refactored **SQL** joins and implemented advanced **Oracle DB** indexing, cutting query latency to prevent bottlenecks.
- Conducted comprehensive root-cause analysis and automated end-to-end testing across core **Java** and **SAP** enterprise modules, identifying and remediating critical defects to maintain **zero** post-deployment downtime during production release cycles.

Projects

AI Personal Trainer | *Next.js, TypeScript, Gemini 2.5 AI, Tailwind CSS, Node.js* December 2025 – April 2026

- Architected a full-stack application utilizing the **Gemini 2.5 Flash API** and **Google AI File Manager** for native **multimodal video reasoning**, enabling automated athletic form analysis via asynchronous processing pipelines.
- Built a **type-safe dashboard** (**TypeScript**, **Tailwind CSS**) that dynamically parses AI-generated JSON to deliver actionable user feedback on high-latency video data.

Technical Skills

Languages: Python, PowerShell, Java, JavaScript, TypeScript, C/C++, SQL, HTML/CSS, PHP, JavaFX
Security & SIEM/EDR: Microsoft Sentinel, Microsoft Defender, Fortinet (FortiSiem/FortiSandbox), VirusTotal, NVD API, CVSS
Cloud & Automation: Microsoft Azure, Azure Logic Apps, REST APIs, JSON/PKCS Cryptography, Docker, Podman, Nginx
Frameworks & Libraries: React, Next.js, Node.js, Express.js, Flask, FastAPI, WebSockets, Bootstrap 5, NumPy, Axios, Handlebars (HBS)
Tools, Databases & Systems: Git, GitHub, Jira, Incident Ticketing Systems, SQLite3, MariaDB, Oracle DB, SAP ABAP, VS Code, Gemini AI API, Copilot