

Shane Currie

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Work Experience

Undergraduate Student Research Fellow, ARiSE Research Lab,

Ontario Tech University – Oshawa, ON

Nov 2025 – Mar 2026

- Conducted a Systematic Literature Review (SLR) on reducing bias and racism in secure software development.
- Supported research on Inclusive Human-Centric Goals for Security (HUGS) in collaboration with the CyberSEA Research Lab at Carleton University.

Military Police, Canadian Armed Forces – Halifax, NS

Mar 2017 – Mar 2022

- Led investigations and resolved criminal incidents and security breaches, applied analytical skills and attention to detail to support military operations, criminal investigations, and legal processes.
- Trained and mentored junior personnel, fostering team effectiveness and contributing to professional development in a high-stakes environment.

Education

Ontario Tech University – Bachelor of Software Engineering (Honours)

May 2026

St Clair College – Ontario College Diploma – Police Foundations

May 2016

St Clair College – Ontario College Diploma – Protection, Security, Investigations

May 2015

Projects

AQuA-Reg – Automated Quality Assurance of Software Requirements

(Capstone 2025-2026)

- Built the ML analysis engine for a completed capstone project that automated quality assurance of software requirements using transformer-based NLP models.
- Trained, tested, and integrated sequence classification and token/span detection models to identify ambiguous, incomplete, compound, and non-verifiable requirements.
- Evaluated model performance using accuracy, macro F1, weighted F1, and span-level F1, achieving 93.4% token/span F1 and 99.4% token accuracy.
- Contributed to rule/ML decision fusion, acceptance testing, and rewrite validation workflows that improved requirement compliance from 43.2% to 89.8% after revision.

Network Intrusion Detection System

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- Built and evaluated ML-based intrusion detection models on the CSE-CIC-IDS2018 dataset, focusing on temporal drift and performance degradation when tested on unseen days of network traffic.
- Developed preprocessing and evaluation workflows to analyze model reliability under changing traffic patterns and distribution shift.

Product Distribution System

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- Developed the Location microservice with a focus on inter-service communication, REST endpoints, and microservice orchestration.
- Configured MySQL integration, Spring Boot service layering, and containerized deployment workflows for reliable multi-service interaction.

Skills

Languages: Java, Python, Kotlin, PHP, SQL, JavaScript, HTML, CSS, XML

Frameworks & Tools: REST APIs, Spring Boot, MVC, Git, CI/CD, spaCy, SpanBERT, BART, Tableau

Specialties: AI, Machine Learning, NLP, Distributed Systems, Quality Assurance, Unit Testing, UI/UX