



Summary

PhD-trained AI engineering leader. Expert in architecting and deploying LLM-driven, data-fusion solutions at scale. Bridges complex AI/ML systems and business strategy - translating technical depth into measurable, real-world impact.

Experience

SecDev Group

Data Scientist & Technical Lead

AI-driven GeoPolitical risk advisory. Founded by ex-special forces and WEF members.

Ottawa, Canada

Jul 2020 - Jun 2025

- Led a team, with the CEO and key stakeholders, to assess and extract knowledge graphs from published documents for corpus-constrained search and retrieval.
- Independently identified inefficiencies in analyzing digital risk. Developed a python-based language-agnostic topic analyzer, reducing analytical delivery times by 80%.
- Improved output fidelity with RLHF inferencing to incorporate domain expertise.
- Championed and enforced best practices across the software development lifecycle, implementing CI/CD with GitHub Actions and docker containers.
- Collaborated directly with customers and stakeholders to architect and launch a city-scale agent-driven simulation, visualizing vaccination rollout.

Roku

Data Scientist

New York, USA

July 2019 – June 2020

- Designed, developed, and evaluated ML classifiers to improve streaming device conversions.
- Segmented customers by purchase propensity using audience segmentation techniques.
- Imputed incomplete user data with sampling and interpolation, improving efficacy.

University of Ottawa

Course Instructor

Ottawa, Canada

Sep 2017 – Apr 2018

- Created and delivered lectures and demonstrations to teach python and algorithms.
- Developed rigorous evaluation methods, and managed teaching assistants.

Amazon

SDE Intern

Seattle, USA

May 2012 – Aug 2012

Education

University of Ottawa

PhD Artificial Intelligence, Data Fusion

Ottawa, Canada

Sep 2013 – Apr 2019

Dissertation: [Optimizing Commercial Maritime Port Operations through High Level Information Fusion](#)

- Developed algorithms and implemented advanced data fusion techniques for dynamic selection and deployment of algorithms and datasets to optimize maritime operational processes.
- Applied Multi-objective Evolutionary Algorithms, Neural Networks, and Fuzzy Systems.
- Designed evaluation metrics for Machine Learning models.

Projects

- Real-time capacity management in healthcare scheduling in a multi-tenant architecture.
- [Pyvolution \(PyPI\)](#): A pure-Python evolutionary algorithms framework with design-by-contract diagnostic capabilities.
- [Pystitia \(PyPI\)](#): A pure-Python decorator-based design-by-contract framework.
- [CommentLogger \(PyPI\)](#): A lightweight developer tool to add inline comments into application logs.

Tools: Scikit-learn, chromadb, neo4j, RAG, Terraform, Ansible, Airflow, GitHub Actions, Sentry, NgInX, Flask, Streamlit, Flet, GenyMotion, AWS, GCP