

Michael E.R. Lalonde

AI-Focused Systems Engineer | Embedded & Full-Stack Developer | CAF Veteran

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GitHub: github.com/Mike-Lalonde | Portfolio: mike-lalonde.github.io/Professional-Development

PROFESSIONAL SUMMARY

Canadian Armed Forces veteran with 20 years of operational service, now specializing in advanced computing systems. Combines embedded firmware engineering, secure networking infrastructure, full-stack development, and machine learning foundations to design integrated, resilient technical systems. Brings disciplined execution, systems-level reasoning, and leadership experience from both military and entrepreneurial environments.

TECHNICAL CORE

AI & Machine Learning: Supervised ML, Neural Networks (from scratch), Reinforcement Learning, Model Evaluation Metrics

Languages: Python, JavaScript, C, SQL, PHP

Full-Stack: React, Node.js, Express, MongoDB, MySQL, JWT Authentication

Embedded Systems: ARM Cortex-M, Interrupts, Timers, Linker Scripts, Deterministic Firmware

Networking & Security: IPv4/IPv6, ACLs, SSH Hardening, VLANs

PROFESSIONAL EXPERIENCE

Business Owner & Instructor — YR Mind InSite / Halifax Hypnosis (2004–2025)

Founded and operated a professional training organization for two decades. Designed structured curricula, managed independent operations, and delivered leadership, communication, and applied problem-solving programs.

Canadian Armed Forces (Navy) — 1986–2006

Served 20 years in high-consequence operational and training environments requiring precision, accountability, and real-time decision-making. Roles included Tactician, Shipborne Aircraft Controller (Grade A), and Submarine Simulator Coordinator.

EDUCATION

Graduate Certificate – IT Programming for Artificial Intelligence (2026) – NSCC Institute of Technology

Graduate Certificate – IT Embedded Systems (IoT) (2023) – NSCC Institute of Technology

Diploma – IT Web Programming & Development (2020–2022) – NSCC Institute of Technology

CLEARANCE

Previously held Government of Canada Secret Clearance; mission-based Top Secret access when required (status lapsed).