

WAYNE NORMAN

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APPLIED AI & SYSTEMS INTEGRATION DEVELOPER

Canadian citizen | Previously held Government of Canada Reliability Status (2014); open to renewal | Available for hybrid and in-person work in Ottawa

PROFESSIONAL SUMMARY

Applied AI and systems-integration developer with 6+ years of experience delivering privacy-first AI applications, Python API services, data integrations, workflow automation, and production web systems for business and public-sector environments. Builds practical local-LLM, retrieval, and controlled-data solutions while connecting requirements discovery, architecture, testing, documentation, security controls, and stakeholder communication.

CORE EXPERTISE

Applied AI & Backend	Python, FastAPI, Flask, REST APIs, local LLMs, Ollama, RAG, embeddings, document ingestion, PyTorch, Safetensors
Data & Infrastructure	PostgreSQL, SQLite, SQL Server, S3-compatible storage, Rust, AWS SDK for Rust, Linux
Systems & Integration	Power Platform, Power Automate, Dataverse, SharePoint, CRM integration, Power BI, SQL/T-SQL
Security & Delivery	Authentication, RBAC, JWT, CSRF, rate limiting, IP allowlisting, audit logging, pytest, integration testing

PROFESSIONAL EXPERIENCE

AI Developer & Founder

Miigwech AI Solutions — Ottawa, ON | Dec 2024–Present

Independent applied-AI and systems-integration practice building privacy-first local AI, legal-research, model-serving, and controlled-data solutions.

- Translated privacy, data-residency, security, and operational requirements into deployable application and infrastructure designs.
- Developed secure Python/FastAPI services, REST APIs, document-ingestion pipelines, retrieval workflows, access controls, and automated tests.
- Evaluated local and open-weight models, inference runtimes, embeddings, and retrieval approaches against quality, hardware, privacy, compliance, and deployment requirements.
- Developed miigEngine, a local legal-research RAG application over 118,891 Canadian case-law and legislative records using vector retrieval and citation grounding to canonical legal records.
- Implemented 41+ application and administrative endpoints for chat, retrieval, authentication, RBAC, sessions, CSRF, IP allowlisting, rate limiting, and audit logging.
- Wrote 38 automated tests covering model integration, RAG retrieval, document parsing, routes, CSRF, input validation, cancellation, and error handling.
- Developed miigModel Adapter, a model-agnostic FastAPI service for open-weight local models, including Mistral 3 3B, using PyTorch and Safetensors.
- Engineered miigCloud Line, a Rust/PostgreSQL controlled-infrastructure prototype with REST APIs, JWT/RBAC, S3-compatible storage, and a CLI; demonstrated it to public-sector attendees and technology vendors at GovTech Summit 2025.

Business Systems Analyst

Universities Canada — Ottawa, ON | Oct 2019–Nov 2024

- Maintained six production websites and hundreds of pages serving 100,000+ users; resolved platform, content, vendor, integration, and access issues across a complex stakeholder environment.
- Built API-driven Power Platform and Power Automate integrations connecting a legacy CRM, SharePoint, Dataverse, Microsoft storage, and operational workflows; profiled, transformed, validated, and loaded inconsistent data into downstream systems.
- Reverse-engineered undocumented CRM behavior and data structures, converting findings into reusable integration templates, field mappings, and technical documentation.
- Mapped enterprise systems, data flows, and integration dependencies across national post-secondary institution networks; provided leadership recommendations on data governance, infrastructure resilience, and vendor lock-in.
- Translated stakeholder needs into technical specifications and delivery roadmaps, balancing business priorities, data quality, technical constraints, and adoption.
- Created Power BI reporting from Dataverse data to improve operational visibility, support data-quality review, and inform decisions.
- Helped establish a SharePoint information environment, defining site structure, templates, navigation, and handoff practices that enabled non-technical teams to maintain content consistently.

SELECTED TECHNICAL PROJECTS

miigEngine — Local Legal Research Assistant

Privacy-first local legal-research RAG application for PDF and Word ingestion, embeddings, SQLite/vector retrieval, source-context handling, streamed responses, cancellation, authenticated access, administrative controls, and pytest coverage.

Technologies: Python, Flask, Ollama, SQLite, RAG, embeddings, Flask-Login, Flask-WTF, Flask-Limiter, pytest.

miigModel Adapter — Local Model Serving

Model-agnostic FastAPI service for local open-weight model generation and chat, including Mistral 3 3B, using PyTorch and Safetensors. Includes text/chat APIs, health and model-status endpoints, logging, startup scripts, and API/model tests.

Technologies: Python, FastAPI, PyTorch, Safetensors, REST APIs, local inference.

miigCloud Line — Controlled Infrastructure Prototype

Rust/PostgreSQL prototype for S3-compatible storage operations with JWT/RBAC-secured REST API and CLI workflows, permission checks, and local infrastructure configuration.

Technologies: Rust, AWS SDK for Rust, PostgreSQL, S3-compatible storage, REST APIs, JWT, RBAC, CLI, TOML, Linux.

EDUCATION

Computer Programmer Diploma

Algonquin College — Ottawa, ON | 2018