

## Summary

- AI & Software Developer with expertise in LLMs, machine learning, and full-stack development. Skilled in Python, TensorFlow, and Spark for AI solutions, as well as Django, SQL, and Agile methodologies for web and data-driven systems. Passionate about automation, data analytics, and scalable software solutions.

## Technical Skills

### Artificial Intelligence (AI)

- Deep Learning:** TensorFlow, Keras, OpenCV, NLTK (algorithm design for NLP, computer vision, audio analysis, transformers, GANs, reinforcement learning)
- Large Language Models (LLMs):** Grok API, OpenAI API (integration, fine-tuning, and evaluation for NLP tasks)
- Machine Learning:** Scikit-learn, Pandas, NumPy (feature engineering, model training, and evaluation with ML algorithms)
- Big Data Tools:** Apache Spark, Hadoop, Cassandra, Azure Data Lake, Power BI, Alteryx (critical evaluation for analytics and dashboards)
- Model Deployment:** Cloud APIs (end-to-end integration and services)
- Data Visualization & EDA:** Tableau, Power BI, Matplotlib, Seaborn, Bokeh (data storytelling for dashboards and insights)
- Data Pipelines:** Apache Spark, Python, SQL, SQLAlchemy, Hadoop, Playwright, Selenium, BeautifulSoup (ETL design and web scraping for ML and big data)
- Feature Selection & Model Optimization:** Pearson Correlation, Chi-Square, RFE, Cross-Validation, Hyperparameter Tuning, ROC AUC (model tuning)

### Software Development

- Programming Languages:** Python, Java, JavaScript, C#, C++, Swift, Bash Scripting, COBOL
- Web Development & Frameworks:** HTML, CSS, JavaScript, Vue.js, Astro, Tailwind CSS, Bootstrap, Three.js, PHP, Django, FastAPI, React, Redux, Node.js, REST (web app development and API integration), Blazor Server, ASP.NET Core MVC, Razor Views, Razor Components, .NET
- Database Management:** MongoDB, SQL, SQLAlchemy, MySQL Workbench, Microsoft SQL Server, Oracle Database, Cassandra, Azure Data Lake (database optimization and integration)
- Tools & Platforms:** Git, GitHub, Azure DevOps, Azure DevOps REST API, Visual Studio, Eclipse, IntelliJ IDEA, PyCharm (version control and development tools), Power BI, Tableau (data visualization and reporting)
- Operating Systems:** Linux, Windows, Mac (scripting and system management)
- Software Development Practices:** Agile Methodologies, Scrum, Agile Project Management, Unit Testing (JUnit, Pytest), Design Thinking, Component-Based Architecture (Blazor, React, Vue.js), API Integration & Caching, Secure Credential Management (.NET)

## Education

### Ontario College Graduate Certificate with Honours | Applied A.I. Solutions Development

- George Brown College, Toronto, ON | Graduated: December 2025 | GPA: 3.81/4.0

### Ontario College Diploma with Honours | Computer Programming

- Algonquin College, Ottawa, ON | Graduated: December 2023 | GPA: 3.71/4.0

### Ontario College Certificate | General Arts and Science

- Algonquin College, Ottawa, ON | Graduated: April 2017 | GPA: 3.53/4.0

## Professional Experience

### Software Developer - QA & Test Automation | NSERC | June 2025 - December 2025

- Built internal tools for QA and DevOps using ASP.NET Core MVC, Blazor Server, C#, and the Azure DevOps REST API, including a release pipeline reporting tool with secure API integration and dynamic test analytics.
- Developed a backlog analysis app with an interactive Blazor UI and integrated AI-powered summarization using large language models (LLMs).

### AI & Software Development Consultant | Freelance | January 2024 - Present

- Developed AI-powered projects integrating LLM APIs (ChatGPT, Grok) for automated summarization, content analysis, and trend detection.
- Trained ML models with Scikit-learn, Pandas, and NumPy, applying feature selection (RFE), XGBoost, Random Forest, cross-validation, and hyperparameter tuning.
- Built ETL pipelines with Python and SQLAlchemy to ingest, clean, and prepare large datasets for ML workflows.
- Built and deployed custom web applications, including an IT ticketing system and YouTube Downloader with Google Drive integration, using Django and Python.
- Performed data visualization and exploratory analysis using Matplotlib, Seaborn, and Pandas.
- Designed and implemented automated workflows using Python and PowerShell, including cloud-based environment and user access management, to streamline system administration.

### Full Stack Web Developer | Fisheries and Oceans Canada | January 2023 - July 2023

- Developed full-stack web applications (e.g., HR onboarding, OHS systems) using Python, Django, JavaScript, HTML, and CSS, building interactive forms with validation and custom UI templates.
- Played a key role in a team-driven PDF signing automation project using Python libraries, reducing administrative time and streamlining document processing.
- Designed database schemas and managed Django ORM migrations during development with SQLite.
- Reviewed and tested pull requests to ensure code quality before merging, identifying issues early through thorough code reviews.
- Participated in stakeholder meetings with product owners and business analysts to refine requirements and align development with business needs.
- Collaborated with the team in Azure DevOps to write clear pull requests and contribute to Agile ceremonies including sprint planning, backlog refinement, and retrospectives.
- Managed a structured Git workflow: created and merged feature branches, resolved merge conflicts, enforced branch naming conventions, and wrote clear, meaningful commit messages.

## Software Engineering Projects

### AI-Powered Insights: AI Trends Tool Development

- Built an LLM-driven analytics tool using Grok API & Playwright to automate trend analysis and content summarization.

### Agile Project Lead: Computer Lab Booking System Development

- Led a 6-member Agile team to develop a Python and Django-based booking system, managing sprint planning, retrospectives, and task delegation to optimize workflow.

### MongoDB Utilities: Python & MongoDB

- Built a console-based catalogue manager and a CSV-to-MongoDB data migration tool using Python and MongoDB, applying MVC architecture and automating database CRUD operations.