Will Musgrave

Solutions Architect, Data & AI · Halifax, Nova Scotia, Canada

will@willmusgrave.com — willmusgrave.com — LinkedIn — GitHub — Certifications

Solutions architect specializing in data and AI, with 7+ years across data engineering, cloud architecture and analytics. Designs governed, secure data platforms on Databricks, Azure and Kubernetes, from semantic layers to AI agents, that people and AI agents can act on. Industry experience spanning survey research, nonprofit finance, supply chain and logistics, student mental health and sports media.

Experience

Psyncopate Technologies, Inc. Mar 2026 – Present

Associate Solutions Architect Remote Full-Time - Halifax, Nova Scotia, Canada

- Built a **Genie Agent** on a governed **Databricks semantic layer** (1,700+ measures, 75 survey metrics) that lets researchers across many countries query 22,000 survey responses in plain English, matching published figures to within 0.1 points.
- Modeled a global survey as a **Unity Catalog Genie Ontology** (111 report findings, 36 respondent subgroups), a single certified source of truth for AI agents and business analysts.
- Built an **AI/BI dashboard** and Genie Agent over IRS Form 990 filings from over 990 affiliates, giving non-technical staff self-serve financial insight.

Everstream Analytics (formerly BlueNode Inc.) May 2022 – Jan 2026

Data Architect Hybrid Full-Time - Halifax, Nova Scotia, Canada

- Cut document-processing costs from **$120K to $3K** for a Transport Canada innovation contract with an Azure Document Intelligence solution extracting 80%+ of key data elements.
- Raised Microsoft Defender for Cloud secure scores from **30% to 90%** through Terraform-managed Azure Policy, resource locks and least-privilege access, deployed with GitHub Actions.
- Served as **Company Security Officer** for Government of Canada contracts and brought BNSuite into Everstream's **SOC 2 Type II** report.
- Led **BNSuite** deployment to Canadian port customers, reducing manual reconciliation of container tracking data.
- Built ML- and NLP-driven data-cleansing pipelines with Azure Functions (Python, C#), Apache Airflow and dbt on AKS, feeding Power BI.

ShiftKey Labs May 2025

Technical Instructor Part-Time In-Office - Halifax, Nova Scotia, Canada

- Taught Azure fundamentals (Entra ID, ARM and Bicep, networking, Azure Monitor) to **115 post-secondary students** preparing for Azure certification.
- Coached soft skills including certification planning, role-aware communication, OKRs and personal branding.

JackHabbit Jan 2021 – May 2022

Software Developer - Machine Learning Remote Full-Time - Halifax, Nova Scotia, Canada

- Led production deployment of a growth management system to **Studentcare – ASEQ**, serving **1M+ post-secondary students**.
- Built an ML-powered recommendation service directing students to content and support services, with Django, MySQL and Docker deployed to AWS ECR and ECS through CI/CD.
- Co-developed privacy impact assessments, data maps and sensitive data classifications with Bamboo Data Consulting as part of privacy-by-design work.

resulta Jan 2019 – Jan 2021
Statistical Analyst In-Office Full-Time - Halifax, Nova Scotia, Canada

- Cut ad-hoc data requests by **80%** with a production self-service reporting platform built in Django.
- Mined historical sports data with MySQL and Python for editorial content used by OddsShark, ESPN, Sports Illustrated and Sportsnet.
- Prototyped real-time tennis odds models with the R&D team.

Earlier experience 2015 – 2021

- **Medical Physics Assistant (Quality Assurance)**, Nova Scotia Health Authority, 2015–2017. Data validation and QA workflows for radiation treatment planning systems.
- **Science & Math Tutor / Technical Instructor**, self-employed, Sylvan Learning Center and Dalhousie University, 2015–2021. Built an applied physics course for Naval Fleet School Atlantic under a DND contract.

Skills

- **Data platforms & engineering:** Databricks (Unity Catalog, Genie, AI/BI dashboards), Apache Spark, PySpark, dbt, Apache Airflow, Apache Kafka, Confluent, Microsoft Fabric, Power BI, SQL, PostgreSQL, MySQL, MongoDB, Redis, ELT/ETL, data warehousing
- **AI & machine learning:** AI agents, generative AI, semantic layers, NLP, MLOps, scikit-learn, TensorFlow, PyTorch, Pandas, NumPy, Azure Document Intelligence, Azure AI Speech
- **Cloud & infrastructure:** Azure, AWS, Kubernetes (AKS), Docker, Helm, Azure Functions, AWS ECS, Terraform, Bicep, ARM templates, Linux
- **DevOps & GitOps:** GitHub Actions, Bitbucket Pipelines, Flux, Argo CD, Git
- **Security, governance & observability:** Unity Catalog, Microsoft Purview, Defender for Cloud, Entra ID, RBAC, PIM, Key Vault, Azure Policy, private networking, Istio, SOC 2, Prometheus, Grafana, OpenTelemetry, Azure Monitor, Well-Architected Framework
- **Languages:** Python, SQL, Bash, PowerShell, Go, C#, JavaScript

Certifications

Full list with verification links: willmusgrave.com/#certifications

- **Databricks (8):** Data Engineer Professional, Machine Learning Professional; Associate: Data Engineer, Generative AI Engineer, Context Engineer, ML Engineer, Data Analyst, Spark Developer
- **Microsoft (7):** Azure Solutions Architect Expert (AZ-305), Fabric Analytics Engineer Associate (DP-600), Azure Administrator Associate (AZ-104); Fundamentals: AI-900, DP-900, SC-900, AZ-900
- **Anthropic (2):** Claude Certified Architect – Foundations, Claude Certified Developer – Foundations
- **Confluent (3):** Certified Developer for Apache Kafka (CCDAK), Certified Administrator for Apache Kafka (CCAAK), Cloud Certified Operator
- **CNCF & The Linux Foundation (16):** Golden Kubestronaut, Kubestronaut; CKS, CKA, CKAD, LFCS; Associate: KCNA, KCSA, CAPA, CBA, CCA, CGOA, ICA, KCA, OTCA, PCA
- **Other:** AWS Certified AI Practitioner; Astronomer Apache Airflow 3 (Fundamentals, DAG Authoring); Professional Scrum Developer I (Scrum.org)

Education

Master of Science, Medical Physics 2015 – 2017
Dalhousie University Halifax, Nova Scotia

- Thesis: Dosimetric Effects of Prostate Calcifications in High-Dose-Rate Brachytherapy Calculations

Combined Honours, Physics and Mathematics 2010 – 2015
University of King's College Halifax, Nova Scotia

- First Class Honours, Certificate in Information Technology, GPA 3.67/4.30