WILLIAM GOODE

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EDUCATION

Ph.D. in Mathematics

University of North Texas | 2023

Dissertation: Annihilators of irreducible representations of the Lie superalgebra of contact vector fields

4.0 GPA | Published in *Expositiones Mathematicae*

B.S. in Mathematics, B.S. in Economics

University of North Texas | 2017

3.79 GPA, Cum Laude

TECHNICAL SKILLS

Languages: Python, SQL (BigQuery, MS SQL Server, PostgreSQL), C# / .NET

Cloud & Infrastructure: AWS (Lambda, S3, RDS, Athena), GCP (BigQuery, Cloud Storage, Cloud Run, IAM), Docker, Data ingestion pipelines

Backend: FastAPI, ASP.NET Core, Entity Framework, LLM integration

Data Engineering: Data pipeline development, Vector databases, Query optimization and performance tuning, Exploratory data analysis, Schema reconciliation

EXPERIENCE

Backend Engineer

Scaylor AI | August 2025 – Present

- Engineered and deployed a GDPR-compliant data ingestion infrastructure on Google Cloud Platform using Terraform, incorporating Customer-Managed Encryption Keys (CMEK) and EU-only resource location policies to ensure data residency and security.
- Led the development and implementation of a Natural Language to SQL (NL→SQL) microservice on Google Cloud Run using Vertex AI, incorporating a two-phase flow for schema extraction, dataset-aware prompt formatting, and comprehensive security validation.
- Designed and developed a unified data tooling system featuring a Cursor-like IDE interface, integrating schema reconciliation, conflict resolution, and AI-powered data analysis capabilities.
- Architected and executed infrastructure migration projects, including the consolidation of 18 GCP projects to a master billing account and the implementation of Workload Identity Federation for secure, least-privilege access to data resources.

Software Engineer

Concan Consulting Corporation | April – June 2025

Senior Lecturer of Mathematics

Vanderbilt University | August 2023 – August 2024

PUBLICATION

C. H. Conley, W. Goode. "An approach to annihilators in the context of vector field Lie algebras." *Expositiones Mathematicae* (2024). arXiv:2403.01728