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

- Designed and implemented a secure, scalable data ingestion and processing pipeline on Google Cloud Platform, incorporating Terraform, Customer-Managed Encryption Keys (CMEK), and PII handling, and ensuring GDPR compliance within EU regions.
- Developed and deployed a natural language to SQL (NL→SQL) service utilizing Vertex AI for semantic parsing, schema extraction, and multi-dataset support, integrated with BigQuery and secured with multi-layer validation and PII masking.
- Architected and built a data unification tooling system featuring a rich interface for data merging, schema reconciliation, and AI-powered data analysis, enhanced with streaming chat functionality and comprehensive table context.
- Led migration and infrastructure stabilization projects, including billing account consolidation, Workload Identity Federation for secure data source access, and performance optimizations achieving 78% compression and 4.5x faster loading of critical datasets.

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