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, GDPR-compliant data ingestion infrastructure on Google Cloud Platform using Terraform, encompassing Shared VPC, Customer-Managed Encryption Keys, and EU-only resource location policies.
- Developed a core NL→SQL pipeline leveraging Vertex AI for schema extraction and dataset-aware prompt formatting, incorporating multi-layer validation, PII masking, and deployed as a FastAPI microservice on Google Cloud Run.
- Led the creation of a modular data processing pipeline for diverse data sources, including data format standardization, data integrity profiling, conflict resolution workflows, and automated processing of 272 tables in under 5 minutes.
- Architected and initiated development of a unified data tooling system, including data merging, schema reconciliation, conflict resolution, and AI-powered data analysis interface with notebook execution capabilities.

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