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

Backend: FastAPI, ASP.NET Core, Entity Framework

Data Engineering: Data pipeline development, Vector databases, DuckDB, MongoDB, Query optimization, Schema reconciliation

Machine Learning: SQL generation with LLMs, ML prototyping, scikit-learn, pandas

EXPERIENCE

Backend Engineer

Scaylor AI | August 2025 – Present

- Architect and deploy data ingestion systems for client database integration
- Develop microservices for SQL generation and query execution
- Design and implement data workflows compliant with GDPR requirements
- Manage security and access provisioning across cloud infrastructure
- Execute database migrations and establish data ingestion pipelines
- Serve as technical point of contact for client integrations and onboarding
- Conduct technical interviews for engineering positions

Software Engineer

Concan Consulting Corporation | April – June 2025

- Developed REST API for client applications
- Consulted small e-commerce businesses on technical best practices

Senior Lecturer of Mathematics

Vanderbilt University | *August 2023 – August 2024*

- Taught calculus, statistics, and survey courses (6 courses total)

PROJECTS

Data Pipeline Architecture

Evaluated and implemented GCS → BigQuery pipeline from scratch. Assessed multiple approaches (AWS Athena/Glue, DuckDB, MongoDB) before selecting GCP BigQuery based on scalability and cost requirements.

Dynamic Data Visualization

Created local database in Microsoft SQL Server and connected to dynamic visualization web app using Dash and Flask.

Containerized ML Deployment

Deployed machine learning models on Amazon ECS as containerized web applications.

PUBLICATION

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