# Garth Mortensen

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#### **Data Scientist**

Creative coder experienced in data science, software engineering and CI/CD. Adept at bridging the gap between technical and non-technical audiances.

# Latest Project: SpilloverLab.com

Financial time series analysis platform that performs ARIMA/GARCH/spillover modeling. It provides human-readable interpretations, visualizations, REST APIs, GraphQL, and MCP server integration for AI agents. Build for modular, microservice cloud-hosted architecture, and fully documented using CI/CD pipelines.

## **Professional Experience**

## Federal Reserve Bank of Minneapolis

Sr. Data Scientist, National Stress Testing Program, Production. Minneapolis, MN - 06/2022 – Present

- Maintained multiple models, infrastructure, dashboards, adhoc analyses for Board of Governors.
- Served as Production econometric team's informal python lead, and formal liaison to middle and backend teams, ensuring smooth integration.
- Proactively introduced unit testing, CI/CD, makefiles, simple-English docs.
- Trained economists in Python, Linux, and computer science principles, enabling self-sufficiency.
- Technical lead in migrating Production codebase across OS, language versions, environments, enabling reproducibility.
- Prototyped a fullstack data management system for tracking Stress Testing operations.

#### University of Minnesota FinTech Bootcamp

Instructor. Student Review. Saint Paul, MN - 09/2021 - 04/2023

- Taught Python programming to working professionals, ranging from sysadmins to finance directors.
- Explored cutting-edge topics such as Machine Learning/AI and blockchain/Solidity smart contracts.

 Scored 9/10 across all rating categories (engagement, clarity, knowledge), across 270+ lecture hours.

#### Medica

#### Sr. Healthcare Analyst Minnetonka, MN - 11/2019 - 06/2022

- Implemented models to predict member diagnoses.
- Discovered a technique to automate database reconciliation, requiring .xml and unstructured data processing.
- Configured bare-metal RHEL server with required libraries, then scripted OCR process to extract .pdf info and insert into database.
- In zero-sum ACA marketplace, consistently outperformed competition.

#### United Health Group R&D

## Developer/Data Scientist, contract. Minneapolis, MN - 01/2019 - 11/2019

- Developed healthcare claims analyses using SQL, Python, and machine learning concepts, resulting in actionable findings presented to the CEO.
- Authored scripts for transforming data, pulling from APIs, ETL, validation, and visualizations.
- Worked on the development of a next-gen big data database for health researchers.

## Munich Reinsurance

# **Sr. Data Analyst.** *Minneapolis*, *MN* - 05/2017 - 12/2018

- Programmatically swept filesystem for all unstructured, disparate claims and transformed them into structured data. Designed and populated a 7+ million record star-schema database.
- Analyzed DIY database to discover insights such as leading diagnoses by prevalence and cost.
- Created and deployed custom-built productivity tools with a GUI frontends.

#### Decyphed

#### Entrepreneurial NLP Developer. Paris, France - 05/2015 - 01/2016

 Programmed text analysis plug-ins/tools specialized in language learning applications.

#### Saylor Consulting

# Industry Cost Consultant, contract. Recommendation available. San Francisco, CA - 12/2013 - 07/2014

• Analyzed industry factors influencing construction industry costs (material/labor) and forecast prices.

- Overhauled cost benchmarking using early industry indicators, resulting in algorithmic, reproducible cost setting.
- Delivered data-driven market analysis reports and product presentations to Federal client.

## **GE Capital REIM**

Investor Relations. Paris, France - 07/2012 - 12/2012

- Oversaw financial database, competitor and industry developments, financial metrics.
- Interpreted market fundamentals for big-ticket investors seeking to purchase entire real estate fund portfolio.
- All \$25+ billion in assets sold off to Blackstone and other financial institutions.

## Xinhua News Agency

Financial News. Beijing, China - 02/2009 - 07/2011

- Led a 15+ international team in the creation of an economics news show. Led by example, working 6 months straight without weekends or PTO in order to satisfy high pressure deadline.
- Innovated demand-driven airtime allocation, using API article topic demand divided by total. Approach was anonymously leaked to CNN International, and appeared on their broadcast lineup for months to years. Still bitter.
- Economics news program ended up selling content to top global news channels and advertising in Times Square.

## Caijing Magazine

Economic Research Assistant. Beijing, China - 01/2008 - 09/2008

- Published 15+ print stories, commodity reports, and analyses.
- Administered and redesigned website. Introduced self made podcasts, video stories, user comments, and other Web 2 technologies, doubling online readership.
- Managed the internship program, allocated work based on strengths and interests.

#### College, high school jobs

Minneapolis, Minnesota. 1/2001 - 12/2007

- College: Owner of brick-and-mortar art studio providing website design, search engine optimization and graphic design services.
- High school/college: Employee of small business providing graphic design, search engine optimization and offsite hosting/storage services.

# Formal Education

## St. Thomas University

St. Paul, USA. 2023

- Double MSc in Software Engineering and Data Science
- Double MSc Certifications in AI and Big Data
- GPA 3.9

#### **EDHEC Business School**

Nice, France. 2012

• MSc Finance

## Hamline University

St. Paul, USA. 2007

• BA Economics

## Skills

**Tech**: Python/R, SQL/NoSQL, database design, Linux, APIs, AWS, CI/CD, containers. Aspiring to build decoupled microservices, APIs (RESTful/GraphQL), fullstack prototyping, 12-factor app solutions.

**Certifications**: MS Software Development, MS Databases, MS IT Networking, MS IT Security, MS HTML/CSS, AWS Cloud Practitioner, Graph SQL, Google Analytics IQ, Excel/VBA, Bloomberg Terminal.

**Languages**: English, French and Mandarin Chinese (CEFR B2, but diminishing).