

Greg Simon, PhD

gregorygsimon@gmail.com

(805) 746-1668

Summary

Leader and expert in state-of-the-art machine learning and statistics, quantitative modeling, and cloud computing for machine learning. Experienced technical project lead with a passion for collaboration and helping teammates grow. Experienced in driving business value by developing products such as recommendation systems, LLM-enabled question-and-answer models, pricing models, revenue and sales forecasting, and risk modeling. Passionate people-leader – team-centered, goal-oriented, and driven to succeed.

Education

PhD Mathematics, 2016, University of Michigan

MS Data Analytics, 2021, Western Governors University

BA Mathematics, 2010, University of California, Santa Cruz

- *cum laude* and *highest honors in the major* (mathematics)

Programming Languages: Python, SQL, R, Bash/Shell, Julia, Mathematica

Other Tools and Skills: Amazon Web Services (AWS) Cloud, Azure Cloud Services, Git, MLFlow, Agile, PyTorch, TensorFlow, Spark, Docker, Kubernetes, Google Apps Script

Employment Experience

Senior AI/ML Scientist – General Motors [2022–Present]

- Scientist project lead for Labor Relations Q&A Chat Bot
 - developed novel RAG algorithm and vector database approach; implemented in Azure via OpenAI
- Scientist project lead for LLM-enabled AI Sales Assistant for used-vehicle inventory with CarBravo
 - Developed new algorithms to extract customer product preferences from conversation and developed novel algorithm for optimal follow-up question generation.
- Scientist project lead for machine learning projects for CarBravo - GM's used vehicle marketplace
 - Developed probabilistic deep-learning time-series forecasting model for use in inventory management.
 - Developed statistical model isolating causal effects of vehicle attributes on days-to-sell.
 - Created an interpretable single-score heat index for used-vehicle sales using ELO theory.
- Helped develop autoencoder neural network model for anomalous driving detection.
 - Productionized model via webserver in Azure Kubernetes Service

Data Scientist – Bayer Crop Science [2020 – 2022]

- Developed model for high-dimensional correlation modeling via copula theory used to forecast risk in portfolio of correlated stochastic revenue and cost sources.
- Developed discrete-choice utility models used for sales forecasting and setting product prices.
- Team expert in AWS cloud services – earned AWS Certification in Machine Learning Specialty (expired 2023, ID#RX11FD2CEB4E1WKF)

Course Faculty in Statistics - Western Governors University [2017 – 2020]

- Maintained Python data pipeline and dashboard to ingest, analyze, and visualize asynchronous student progress.

Graduate Student Instructor [2011-2016] then Lecturer [2016-2017] – University of Michigan

Other Projects

Project Lead for image recognition project with TrainX and Project Green Light [2019]

- Lead student-practitioners developing convolutional neural network image recognition model in AWS to predict make and models from images of cars from street-facing webcams, in connection with Detroit PD
- Contact: Aubrey Agee, TrainX co-founder, aubrey@trainx.ai