**Greg Simon, PhD**

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**Professional Summary**

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

**Non-proprietary project portfolio available at**: [https://gregorygsimon.github.io](https://gregorygsimon.github.io/)

**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, Julia, Bash/Shell, Mathematica (some)

**Other Tools and Skills:** AWS Cloud, Microsoft Azure, Git, MLFlow, Agile, PyTorch, TensorFlow, Spark, Docker, Kubernetes (some), Google Apps Script

**Employment Experience**

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

* Technical project lead for ChatGPT-enabled Q&A chat-bot in Azure, responsible for assisting managers with labor relations questions taken from new labor agreement documents
* Technical project lead for ChatGPT-enabled AI Sales Assistant for used-vehicle inventory with CarBravo
  + Developed unique algorithms to extract customer preferences from user conversations to recommend vehicles, as well as for optimal follow-up question generation.
* Project lead of machine learning for CarBravo, GM’s used-vehicle marketplace
  + Developed probabilistic deep-learning time-series forecasting model for use in inventory management.
  + Developed Bayesian regression model isolating causal effects of vehicle attributes’ on days-to-sell.
* Helped develop autoencoder neural network model for anomalous driving detection for OnStar mobile.
  + Productionized model via MLflow, Kubernetes in Azure DevOps, Docker, uvicorn, FastAPI.

**Data Scientist – Bayer Crop Science** [2020– 2022]

* Developed model for high-dimensional correlation / risk modeling via copula theory used to aggregate risk.
* Developed discrete-choice customer utility and decision models used for sales forecasting and correcting bias in revenue and risk forecasts.
* Team expert in AWS cloud services – EarnedAWS Certification - Machine Learning Specialty (recently expired 2023, ID#RX11FD2CEB4E1WKF). Developed team Glue data catalog, developed Lambda layers with docker to aid in app hosting, constructed data storage back-end for customer-facing app.

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

* Developed Python data pipeline to ingest and analyze student data for approx. 1500 active students in one course, including a machine learning model aligning coursework with positive student outcomes (XGBoost) and a dashboard to wrangle and visualize asynchronous student progress.

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

**Projects**

**Faculty for image recognition 6-week project with TrainX and Project Green Light** 2019

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

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