

# Greg Simon PhD

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## Professional Summary

I am experienced with the practical application and theory of state-of-the-art data analysis, including data wrangling and cleaning, exploratory data analysis, modern statistics and machine learning, with successful projects in forecasting, classification and regression, clustering, and natural language processing. Experienced faculty in mathematics and statistics.

Portfolio available at: <https://gregorygsimon.github.io>

## Education

**PhD Mathematics**, 2016, University of Michigan.

**BA Mathematics**, 2010, University of California, Santa Cruz.

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

## Technical Skills

**Languages:** Python, SQL, Spark, Mathematica, R (some), Julia (some)

**Other:** Amazon Web Services (AWS), Google Script, Bash/Linux, Docker

**Certifications:** AWS Certification - Machine Learning Specialty (2020, ID#RX11FD2CEB4E1WKF)

## Employment Experience

**Western Governors University** *Course Faculty* [2017 – Present]

- Teaching applied statistics to undergraduate and graduate students
- Led machine learning project for aligning course practice problems with positive student outcomes
- Department expert in data visualization in Python
- Developed model to predict student success on assessment, used to target outreach
- Created automation pipeline for department to email messages to students daily
- Maintained dashboard used by department daily to summarize student progress

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

- Primary instructor for calculus series, including differential equations and multi-variable calculus

## Other Projects

**Classifying Expenses using User-defined Categories**

- Minimal viable product: AWS Pipeline for collecting credit card transactions, using web-scraping and NLP to classify them into user-created categories

**Analyzing US markets via Covid-19 Twitter sentiment**

- Python data pipeline to gather tweets and geocoder to parse user locations
- using deviations in regional sentiment to model stock fluctuations for regional businesses

**Image recognition 6-week project with TrainX** 07/2019 – 09/2019

- Co-lead of cohort of five student practitioners developing image recognition model in AWS to predict make and models from images of car from greenlight cameras, in connection with DPD
- Contact: Aubrey Agee, aubrey@trainx.ai

**NLP sentiment analysis and topic extraction from online reviews**

- web scraping text reviews and using word embedding (word2vec) and dimensionality reduction to summarize flavor profiles of whiskeys from 34,000 unstructured whiskey reviews

*updated: Aug 6, 2020*