



# Gregory Simon

Data Scientist & Statistics Faculty


Programming, math and statistics, machine learning, a team mindset, clear communication



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## EDUCATION

### Ph.D. in Mathematics

University of Michigan

2016

*Thesis/Focus*

- computational linear algebra problems in algebraic quantum field theory / 'monstrous moonshine' using Mathematica

### B.A. in Mathematics

University of California, Santa Cruz

2010

*Achievements*

- cum laude & highest honors in the major of mathematics

## WORK EXPERIENCE

### Data Science Consultant

TrainX

06/2019 – 08/2019

Detroit, MI

*Training practical data & machine learning skills with community and business projects*

*Achievements/Tasks*

- co-lead for team of five student practitioners in 8 week image recognition project

Contact: Aubrey Agee – aubrey@trainx.ai

### Course Faculty in Statistics

Western Governors University

2017 – Present

*Achievements/Description*

- Outstanding student evaluations available upon request
- Used Python, GoogleScript/Javascript, SQL to create and maintain automation pipelines, a dashboard, and gather student analytics to improve team and student performance
- Responsible for pedagogical team data visualization tasks (in Python)

### Lecturer in Mathematics

University of Michigan

2016 – 2017

Ann Arbor, MI

*Achievements/Description*

- Primary Instructor for Calculus series

June 20, 2020

## SKILLS

Python

Machine Learning

Statistics

Probability

Deep learning

NLP

Data Visualization

SQL

Data Wrangling

Mathematics

Linear Algebra

Web Scraping

Linux

Amazon Web Services (AWS)

## SELECTED PROJECTS

### Predicting User-defined spending categories (2020)

- AWS API Gateway, Lambda, DynamoDB to gather credit card transactions real time
- Using search results for transaction location + NLP (TF-IDF and SVM), reached 75% accuracy in predicting user's custom category label

### Image recognition with TrainX (2019)

- Co-lead of team of five creating minimal viable product for image recognition to predict make and models from web cam car images with connection to Green Light project in Detroit
- using AWS Sagemaker & EFS, various convolution neural network architectures and implementations, web scraping to gather training image data

### Analytics on assessment data (2019 – Present)

- Using Python [selenium, BeautifulSoup, pandas] to scrape HTML data of student progress & practice assessment results
- Using machine learning models to determine feature importance
- Used to determine effective/ineffective practice problems and improve WGU course curriculum

### Student outreach automation pipeline in Python (2018)

- Using Python, SQL, pandas to gather team data and send personalized recommendations and resources to students after triggers
- Used by team of 10 instructors daily for over a year before enterprise solution was piloted and launched across university

## CERTIFICATIONS/TRAINING

### AWS Certification - Machine Learning Specialty (02/2020)

Credential ID RX11FD2CEB4E1WKF

### DataCamp - Data Scientist with Python (2018)

21 courses covering: gathering & cleaning data with pandas & SQL, supervised & unsupervised learning with scikit-learn, deep learning with keras, etc.