

## DANIEL MOSCOE

dmoscoe@gmail.com  
585-298-7553

linkedin.com/in/dmoscoe  
dmoscoe.github.io

### SUMMARY

Experienced math educator pivoting to a career in data science. Master's degree in Data Science completed 12/2021. Specializing in data visualization and analytics, predictive modeling, and inferential statistics to drive evidence-based decision-making.

### SELECTED PROJECTS

*Please see portfolio at [dmoscoe.github.io](https://dmoscoe.github.io)*

#### Predicting Academic Outcomes with DAACS

- Developed an early alert system for academic risk, directing support to students before they fail a course
- Predictive models combine linear, tree, and non-parametric components
- Implemented in R on Amazon Elastic Compute Cloud

#### EIA Explorer

- Designed interactive visualizations on the web to show electricity generation dynamics across the US
- Implemented in Python with Pandas and Plotly

#### Moneyball

- Led a team of classmates to predict the performance of baseball teams
- Used R to perform feature engineering and construct linear regression models to minimize root mean square error

#### Telecom Churn Analysis

- Predicted which customers will attrite based on account information and local market research
- Used R to perform feature engineering and construct and evaluate logistic regression and random forest models

### EDUCATION

<b>City University of New York</b> , School of Professional Studies	New York, NY
<i>Master of Science in Data Science</i>	2021

- Coursework includes Statistics, Python Programming, Simulation and Modeling Techniques, Predictive Analytics, Data Visualization

<b>City University of New York</b> , Hunter College	New York, NY
<i>Advanced Certificate in Computer Science Education</i>	2021

- Developed pedagogical strategies for intro CS concepts using Java and Python

<b>City University of New York</b> , Hunter College	New York, NY
<i>Master of Arts in Adolescent Mathematics Education</i>	2010

<b>Cornell University</b> , College of Agriculture and Life Sciences	Ithaca, NY
<i>Bachelor of Science in Applied Economics and Management</i>	2005

## EXPERIENCE

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**Diagnostic Assessment and Achievement of College Skills (DAACS)** New York, NY  
*Data Analyst* 2021

- Developed predictive models of undergraduate academic outcomes using R on Amazon Elastic Compute Cloud
- Presented findings directly to stakeholders at undergraduate institutions

**Columbia Secondary School** New York, NY  
*Math Department Chair, Math Teacher* 2015-2020

- Developed innovative curricular materials with a dual focus on mathematical rigor and effective communication
- Led professional development on evidence-based practices for effective feedback
- Strategized with administrators to coordinate instructional themes across content areas for middle school and high school
- Earned highest performance rating 2015-2020

**William W. Niles School** Bronx, NY  
*Math Teacher* 2011-2015

- Implemented standards-based grading with custom progress reports and individualized feedback using Microsoft Access
- Math for America Early Career Fellow

**New Roots Charter School** Ithaca, NY  
*Math Teacher* 2010-2011

- Founding geometry teacher
- Mentored students in advisory

## ADDITIONAL INFORMATION

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- New York Teacher Certification, Mathematics, grades 7-12; Computer Science, grades K-12
- Developing proficiency in SQL