Michael Griffin

Master's Degree Candidate in Data Science

👤 Profile

I am an educator making a career change after 7 years teaching in New York City. As a teacher, I developed a passion for using data analysis to drive positive student outcomes. I believe this passion makes me a terrific addition to any data science team.

I have a love for communication, and enjoying working with teams of other motivated people who are going to push me to improve and enrich my capabilities. I have developed a robust skill set during my coursework, and have applied those skills in projects that demonstrate both technical proficiency and the ability to handle big data.

💼 Employment History

Middle School STEM Teacher at Boy's Prep Charter School, Bronx, NY

August 2023 — August 2024

Used analysis of historical and current student data to develop and expand the base curriculum, implementing differentiated classroom strategies and creating interim assessments that effectively addressed student misconceptions. As a result, achieved 40% Grade Level Proficiency during Trimesters 1 and 2, increased from 4.3% during the same semesters the previous year.

Co-founded and coached the school's Track and Field team, earning multiple top 5 performances at the NYC MSAL City Championship Meet.

Middle School STEM Teacher at Leaders In Our Neighborhood Charter School, Bronx, NY

September 2017 — August 2023

Taught 4th and 5th Grade Science as Lead Teacher from 2021-23; used analysis of data gathered during collaborative work with ELA and Math departments to design differentiated lessons and materials for ICT classes. Implemented targeted reteaches using relevant student assessment data. As a result, achieved the science department's highest average standards-based growth in both 2021-22 and 2022-23.

As Middle School Athletic Director, founded 9 academic and athletic teams, managing scheduling and logistics for 20 coaches and more than 120 athletes, while simultaneously coaching FLL Robotics and Lacrosse to New York City playoffs in 2022 and 2023, respectively. Built relationships with related non-profits, and developed fund-raising campaigns which raised over $15,000 in donations and equipment in 2023.

Details

Located in New York City
646-248-4363
mjgriffin19527@gmail.com

Links

Github
LinkedIn

Technical Skills

SQL

Git

Python (including scikit-learn)

MySQL

R Programming

Tableau

Data Visualization

Data Analytics

Tensorflow

🎓 Education

B.A., History, Creative Writing and Literature, University of Michigan, Ann Arbor, MI

June 2013 — May 2017

Graduated with a 3.65/4.0 GPA In-Major, 3.12/4.0 overall.

M.Ed., Childhood Education, Grades 1-6, Bank Street College of Education, New York, NY

September 2020 — December 2022

GPA: 3.92/4.0

M.S., Data Science, Pace University, New York, NY

September 2024 — May 2026

Current Master's Degree Candidate in Data Science, expected graduation data of May 2026.

Current GPA: 4.0/4.0

Notable Coursework:

Designed and implemented a normalized database schema using MySQL, optimizing for relational integrity and efficient querying. Developed and executed a robust ETL pipeline in Databricks, after translating and optimizing MySQL syntax for compatibility.

Completed multiple EDAs on large-scale datasets, applying complex imputation methods, data normalization and balancing, and conducting preliminary analysis.

Used the scikit-learn and SymPy libraries to create dimensionality reduction solutions using Principal Component Analysis and MapReduce.

Implemented Decision Tree and Random Forest Regressors and Classifiers on cleaned datasets, and used Bayesian Modeling and Grid Search to tune and optimize models.

Analyzed COVID-19 Tweet data to classify sentiment and identify key topics using a pre-trained Large Language Model, achieving accurate sentiment classification with minimal fine-tuning.

Analyzed NBA shot chart data to uncover patterns and trends in player performance, leveraging advanced statistical techniques and data visualization tools. Built and trained a TensorFlow-based machine learning model to predict shot outcomes, incorporating features such as shot distance, defender proximity, and game context. Delivered actionable insights into shot success factors, showcasing capabilities in data preprocessing, feature engineering, and deep learning.