

NICOLE SEMERANO

DATA SCIENTIST

EXPERIENCE

Metis · New York, NY

Data Scientist · Mar. 2020 to June 2020

- Completed a 12-week accredited data science bootcamp focused on Python programming, machine learning, statistical modeling, data visualization, project design, and communication.
- Devised four individual supervised and unsupervised machine learning models to implement objectives and build statistical models using historical data. *See project section.*

Chestnut Ridge Middle School—East Ramapo CSD · Chestnut Ridge, NY

Mathematics Teacher · 2018 to 2019

- Taught the Common Core curriculum for 8th grade math to a historically low-performing and diverse set of children. Two-thirds of students were multiple grades below grade level
- Tracked data analysis from a variety of resources to implement a Core Support class to meet the students' needs. Increased some students' STAR scores by two grade levels

Roscoe Central School · Roscoe, NY

Mathematics and Social Studies Teacher · 2010 to 2018

- Developed and implement lessons for both subjects in 7-8th grades, Regents Algebra (both one and two-year), Regents US History and Government, and a Math Applications elective
- Prepared students for various state and county assessments producing results like a 99% passing rate on US History Regents and the highest Math 8 scores in Sullivan County for 2013-2015
- Leadership Roles included Class of 2014 Advisor and Honor Society Selection Committee member

PROJECTS

Prescription Identifying with Neural Networks

- Created a CNN model to identify prescription pills of 1300 images from the Pillbox Database or scraped online
- Utilized Google Colaboratory's GPU to train the VGG16 model with extracted features, fully connected layers and regularization
- Visualized a mobile app using Flask to recognize a prescription drug from an image and return the result for the client

Presidential Speeches with Natural Language Processing

- Scrapped 1000+ speeches of all US Presidents from Miller Center and NLTK using Selenium and BeautifulSoup
- Topic Modeled using Non-Negative Matrix Factorization to find themes and common language in American History
- Analyzed sentiment values across Presidents using VADER
- Assembled an interactive Sentiment Analysis using Tableau and integrated Seaborn to showcase language in a timeline format

Baseball All-Stars with Classification Modeling

- Cleaned and processed 36,000 MLB batters' statistical data using SQL and Pandas
- Built a Random Forrest classifier model to predict their eligibility for the All-Star game at a 91% accuracy
- Analyzed Feature engineering to determine key elements that influence a batter's success
- Developed a prototype web app using Flask that allows fans or coaches to get a player's classification based on their statistics

Historic Trends in Movies with Linear Regression

- Focused on building a linear regression model to predict the longevity of a movie past the box-office sales
- Selected specific box office and DVD sale features using LASSO feature selection
- Utilized Seaborn to compare features and Matplotlib to plot predicted versus observed values

CONTACT

✉ nicole.semerano@yahoo.com

☎ (845)820-2591

📍 Harriman, NY 10926

in nicole-semerano

🌐 nicolesemerano

SKILLS

PYTHON

Pandas

NLP

Supervised Machine Learning

Database Design and Management

Scikit-learn

BeautifulSoup/Selenium

Numpy

Keras

DATA VISUALIZATION

Seaborn

Flask

Matplotlib

Tableau

D3.js

Plotly

TOOLS

NOSQL

AWS

SQL

MongoDB

MATHEMATICS

Statistics

Probability

Calculus

EDUCATION

Mary Washington College

BA American Studies 2004

SUNY New Paltz

MAT Social Studies 2006

NYS Teaching Certification: Professional Public School Teacher, Social Studies 7-12

SUNY Learning Network

2008

NYS Teaching Certification: Professional Public School Teacher, Mathematics 7-12