William Spagnola

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EXPERIENCE

Research Alliance for New York City Schools — New York, NY
Technical Research Analyst — *July 2019 to present*

- Maintain data pipeline and design data structures in preparation for analysis using SQL and SAS.
- Designed a regression discontinuity study to analyze the causal effect of Career and Technical Education on High School Graduation rates.
- Created a Logistic Regression model to predict drop out risk among New York City public high school students.
- Developed a survey to evaluate effectiveness of an after-school STEM program for disadvantaged students.

Tobacco Research Lab — New York, NY
Research Intern — *January 2019 to June 2019*

- Studied patterns of smoking behavior using longitudinal survey data
- Created interactive visualizations of smoking patterns across multiple stages in the study

The Rusk Institute of Rehabilitation Medicine — New York, NY
Statistical Consultant — *February 2018 to June 2019*

- Prepared data visualization and analysis for a study on the relationship between cytokines and fibromyalgia. Published in *The Journal of the International Association for the Study of Pain*
- Collaborated on a study proposal of the effects of Heart Rate Variability using multi-level modeling. Validated the design using simulation.
- Provided statistical consulting for research on the effectiveness of exercise and speech therapy.

New York City Department of Education — Bronx, NY
Special Education Teacher — *September 2009 to June 2016*

- Taught students with autism and intellectual disabilities in a public special education high school.

EDUCATION

New York University — New York, NY
Master of Science in Applied Statistics for Social Science Research; GPA: 4.00
Recipient of Western Scholarship

Pace University — New York, NY
Master of Science in Special Education

Loyola University — Baltimore, MD
B.A. in English Literature with Spanish Minor

PROJECTS

- **Machine Learning Project on 2016 Election Data:** Investigated clusters in county-level presidential data using k-means and model-based clustering algorithms
- **Interactive Shiny App for COVID19 Data:** Created an interactive/up-to-date dashboard of COVID case and death data at the country, state, and county levels
- **Gender Dynamics in Data Science Survey Project:** Collaborated on a team to create a survey to investigate perceptions of gender and ability in data science.
- **NYPD Crime Data Visualization:** Won an award from the NYU Statistics Club for creating a data visualization that compared New York City crime rates on Halloween to yearly averages.
- **Family Heritage Website:** Developed a website on Pennsylvanian German family history for a genealogy group.

SKILLS

- R and RShiny
- Python
- SQL
- Tableau
- Stata
- SQL
- Google Apps Script
- Git
- HTML/CSS