

Sam Gass

DATA SCIENTIST

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Relevant Experience

Analyst Institute

Washington, DC

SHINY DASHBOARD ENGINEER CONTRACTOR AND ANALYST CONTRACTOR

Jan 2019 - June 2019

- Built full-scale, interactive web app that allows users to more thoroughly explore results of AI Meta Analysis.
- Application includes complex back-end, which runs statistical analysis based on user input and data filtering. Front-end incorporates interconnected click-throughs and data visualizations, gives user ability to click on single point on graph to visualize the data points used to calculate that result.

Analyst Institute

Washington, DC

ANALYST, 2018 CAMPAIGN CYCLE

May 2018 - Dec 2018

- Served in the primary technical role on a small team that ran multiple large-scale field experiments.
- Preparation Phase: Identified strategies for randomizing universe and performing analysis then created randomization and analytics plans. Randomized universe using stratified or block randomization, ensuring balance across treatment groups. While experiment is in field, check implementation data to ensure correct delivery of treatments.
- Analysis Phase: Conducted the statistical analysis of the outcome data; identified correct models to use, broke down effects by subgroup, validated results and models for accuracy. Worked with the research manager to interpret the results and build deck. Created visualizations for final presentation, drafted results memo and presented results to client with research manager.

NBC Universal

New York, New York

DATA SCIENCE INTERN

January 2018 - May 2018

- Used databricks and pySpark environment to compile and merge multi-terabyte datasets in order to calculate accuracy of linear forecasts in three quarters. Created backend pipeline and automated the process for future analyses.
- Created recursive algorithm that recreated lower level spreadsheets that were used in other departments, but unavailable to ours, from higher level aggregations we received. Saved team hours of manual input.

The Public Good

New York, New York

DATA SCIENCE CONTRACTOR

May 2017 - January 2018

- Designed and built large scale geospatial dashboard for client using shiny, JavaScript, and CSS. Aggregated demographic data from ACS API and social data through Facebook API into a single interactive map interface and hosted online for client access.

The Institute for Social and Economic Research and Policy at Columbia University

New York, New York

RESEARCH ASSISTANT

June 2017 - September 2017

- Created lesson modules for web scraping, API use, and data manipulation in both R and Python for QMSS program director; code and notes will be used in an intro programming class for QMSS students.

The Institute for Social and Economic Research and Policy at Columbia University

New York, New York

RESEARCH ASSISTANT

January 2017 - September 2017

- Worked with Professor Costas Panagopolous on data aggregation, analysis, and presentation as well as writing for an upcoming book on challenger quality in Congressional races in the United States.

Education

Syracuse University

BA POLITICAL SCIENCE & ECONOMICS. MAGNA CUM LAUDE WITH RENNEE CROWN UNIVERSITY HONORS.

Aug 2009 - May 2013

Columbia University

MA QUANTITATIVE METHODS IN THE SOCIAL SCIENCES. GPA OF 4.07.

Aug 2016 - Dec 2017

Relevant Skills

ANALYSIS

- Inferential Statistics, Linear Regression, GLMs, Multi-Level Modeling, Time-Series, Panel Modeling, Fixed Effects, Random Effects

PREDICTIVE MODELING

- Machine Learning, Reinforcement Learning, NLP, Neural Networks, Dimensionality Reduction

DATA CLEANING, VISUALIZATION, AND STORAGE

- Static Plots, ggplot, Tableau, d3, Interactive Visualization, Shiny, Plotly, Dashboards, Tidyverse, pandas, SQL, AWS, pySpark, regex, purrr

PROGRAMMING LANGUAGES

- R (dplyr, ggplot2, shiny, leaflet, tmap, dbplyr, markdown), Python(pandas, scikit-learn, numpy, scipy, Jupyter), SQL, Stata, JavaScript, HTML/CSS