

Trisha Singh

DATA SCIENTIST

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Education

Stanford University

M.S. STATISTICS

Stanford, CA

Incoming, Sep 2019

Middlebury College

B.A. MATHEMATICS AND ECONOMICS (DOUBLE MAJOR), GPA: 3.83/4.00

Middlebury, VT

Sep 2014 - May 2018

Skills

Areas Machine Learning, Causal Inference, Probability and Statistics Theory, Linear Algebra, Data Structures

Tools Python with NumPy, pandas, and scikit-learn, R with data.frame, dplyr, and ggplot2, SQL, QGIS

Experience

Quantitative Analyst

Boston, MA

ANALYSIS GROUP

May - Jul 2017, Sep 2018 - May 2019 (1 year)

- Assembled first-of-its-kind dataset on treatment of a rare disease using **electronic medical records**; automated data extraction, cleaning, and analysis which sped up pipeline by **80%** for creating frequent and iterative deliverables
- Built the **survival analysis** component with cox regression models and interactive graphics for an internal **RShiny** app for comparing drugs; it is now being used on multiple cases to provide quick and reliable insights to clients
- Parsed and cleaned large **unstructured trading logs** to identify spoofing in financial markets
- Trained 150 analysts across 6 offices on **data analysis with pandas** and **natural language processing in Python**; created and led **algorithm design workshop** for all healthcare analysts in Boston

Research Assistant

Middlebury, VT

MIDDLEBURY COLLEGE ECONOMICS DEPARTMENT

May 2017 - May 2018 (1 year)

- Analyzed the effect of deforestation on malaria prevalence and economic outcomes in Nigeria such as children's mortality, nutrition, and education using **GIS** and **difference-in-differences** analysis
- Consolidated and cleaned multiple **survey and geographic datasets**; read and summarized health literature to propose estimation strategies

Teaching Assistant and Tutor

Middlebury, VT

STATISTICS, ECONOMICS, GIS

Mar 2016 - May 2018 (2.5 years)

- Led tutoring sessions for **Introduction to Statistics**, **Regression Analysis**, and **Introduction to GIS**; graded and proof-read solutions for assignments
- Explained data analysis and visualization concepts to students in **R**, **STATA**, and **ArcGIS**

Projects

Independent Study on Causal Inference

<https://github.com/trishasingh/regression-and-matching>

- Compared the performance of different non-parametric **regression and propensity score matching** methods for causal effect estimation; used **parallel processing** to conduct Monte Carlo simulations in R
- Awarded **\$5,000** by Math department to attend StatHorizons seminar
- Invited to present research at **Smith College**

Energy Demand Forecasting

<https://github.com/trishasingh/energy-consumption-forecasting>

- Trained a **convolutional neural network** to predict energy consumption of a building with **NumPy** and **keras** in Python

Other projects

<https://trishasingh.github.io/projects/>

Honors & Awards

2016 - 2018 **BOLD Scholar**, \$27,500 p.a. scholarship for leadership and academic excellence

National

Apr 2016 **Winner, Best Visualization**, American Statistical Association DataFest Vermont

Regional

2014 - 2018 **F.C. Dirks Prize in Economics and Highest Honors in Economics**, Top 10%

Middlebury College

2014 - 2018 **High Honors in Mathematics**, Top 10%

Middlebury College