

Marium Tapal

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EDUCATION

SMITH COLLEGE

B.A. in Mathematics & Statistical and Data Sciences

Northampton, MA
Aug'18 – May'22

- GPA: 3.97/4.00
- Awards: Cum Laude Honors, Phi Beta Kappa, Mu Sigma Rho, Dean's List 2018-2021
- Coursework: Adv Prog in R, Bayesian Analysis, Probability, Mathematical Statistics, Modeling for ML, Visual Analytics, Multiple Regression, Stats in Education, Linear Algebra, Real Analysis, Complex Analysis, Advanced Calculus
- Technical Skills: Advanced: R, Git/GitHub, MS Products; Experience with: Python, SQL, LaTeX, HTML/CSS, Tableau
- Languages: English (Fluent), German (Intermediate), Urdu (Native), Gujarati (Native)

TECHNICAL EXPERIENCE & PROJECTS

SMITH COLLEGE STATISTICAL AND DATA SCIENCES

Northampton, MA

Data and Teaching Assistant, Spinelli Center for Quantitative Learning

Sep'21 – May'22

- Conducted 4 open hours per week as a general statistics and data science tutor.
- Supported >100 students through data science labs and projects in the Introductory Data Science and Statistics courses.

Data Analyst, Baumer Lab

Jan'20 – May'22

- Built an R package that provides tools to load U.S. political election data using the ETL framework.
- Published R package {fec16} containing 2016 election data on CRAN with >11000 downloads. github.com/baumer-lab/fec16
- Presented research at the Women in Statistical and Data Sciences and the eUSR conferences.

Summer Undergraduate Research Fellowship, Tinker Lab

May'21 – July'21

- Spearheaded production of the Aligned Hierarchies {repytah} Python package for distribution via PyPI and Anaconda; updated 8 functions and wrote >10000 lines of code. github.com/smith-tinkerlab/repytah
- Collaborated with a team of 6 people to build supporting website and write paper for journal submission.

Data Science Intern, Prof. Albert Y. Kim

Jun'20 – Jul'20

- Updated the {fivethirtyeight} R package to host large datasets via a drat repository which boosted downloads by >40% in the first month of release by closing 4 major enhancements and issues. github.com/rudeboybert/fivethirtyeight
- Enhanced reproducibility of the ModernDive textbook by contributing to 5 issues; revamped associated website and package. github.com/moderndive/ModernDive_book

FEDERAL RESERVE BANK OF CLEVELAND

Remote

Capstone Project

Sep'21 – Dec'21

- Automated the collection and cleaning of Twitter data of 5 financial institutions using the Twitter API and R.
- Performed bigram sentiment, regression, and changepoint analysis, documented code, and wrote 15 page report for client.

FINEPRINT DATA

Remote

Data Science Intern

Jan'21 – Feb'21

- Investigated political investment data and explored 10+ factors that influence trading decisions.
- Translated code from Stata into R, built over 150 statistical models, and consolidated 5 directions for future research.

PROJECTS

- Automated Bayesian Simple Normal Regression: generate a fully customizable R Markdown report with 1 line of code. github.com/mariumtapal/bayes-regression-report
- Personal Website created using the {blogdown} R package, Hugo, and the Goa theme. mariumpapal.rbind.io
- Marium Bakes - a baking recipe website made using R Markdown, HTML, and CSS. mariumpapal.github.io/marium-bakes
- Shiny App exploring NYC Civilian Complaints about the NYPD. mariumpapal.shinyapps.io/sds235-final-project/
- 15-minute activity teaching classification in multimodal memes. github.com/mariumpapal/hateful-memes-paper

OTHER EXPERIENCE

SMITHIES IN STATISTICAL AND DATA SCIENCES

Northampton, MA

Vice President & Data Mentor

Sep'19 – May'22

- Led over 100 organization members, created community, and arranged data science themed events.
- Hosted R Markdown and Git workshops, teas, panels, and Data Science Day for >75 attendees.