

Marium Tapal

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EDUCATION

Smith College

B.A. in Mathematics & Statistical and Data Sciences

Northampton, MA, USA

May 2022

- GPA: 3.97/4.00
- Awards: Dean's List 2018-2019, 2019-2020
- Coursework: Advanced Programming in R, Bayesian Analysis, Modeling for Machine Learning, Visual Analytics, Multiple Regression, Stats in Education, Linear Algebra, Intro to Analysis, Probability, Advanced Calculus, Complex Analysis
- Technical Skills: Advanced: R, Git/GitHub; Experience with: Python, SQL, LaTeX, HTML/CSS
- Languages: English (Fluent), German (Elementary A2), Urdu (Native), Gujarati (Native)

PROFESSIONAL EXPERIENCE & PROJECTS

Smith College - Department of Computer Science

Remote

Summer Undergraduate Research Fellowship, Tinker Lab

May'21 – Present

- Spearhead the software production of the Aligned Hierarchies (ah) Music Information Retrieval Python package to host on PyPI and Anaconda by updating 8 functions and writing >2500 lines of code.
- Work with a geographically distributed team of 6 people to build supporting website and write paper to submit to JOSS.

Smith College - Program in Statistical and Data Sciences

Northampton, MA

Undergraduate Researcher, Prof. Benjamin S. Baumer

Jan'20 – Present

- Develop R package {fec16} with 12 datasets and 4 functions containing relational data from the 2016 U.S. federal elections; publish on the Comprehensive R Archive Network (CRAN) with >6000 downloads. github.com/baumer-lab/fec16
- Present research at 2 professional conferences namely WSDS and eUSR.
- Author complementary {fec12} and {fec20} R packages. github.com/baumer-lab/fec12, github.com/baumer-lab/fec20

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.

Smith College - Program in Statistical and Data Sciences

Remote

Data Science Research 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

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. <https://mariumpapal.shinyapps.io/sds235-final-project/>
- 15-minute activity teaching classification in multimodal memes. <https://github.com/mariumpapal/hateful-memes-paper>

LEADERSHIP EXPERIENCE

Smithies in Statistical and Data Sciences

Northampton, MA

Vice President & Data Mentor

Sep'19 – Present

- Lead over 100 organization members, create community, and arrange data science themed events.
- Host Rmarkdown tips and tricks workshop, data visualization tea, and Data Science Day for >75 attendees.

Smith College Residence Life

Northampton, MA

House Community Advisor

Aug'19 – May'21

- Cultivated community in 3 different houses with >70 residents each.
- Served as the initial contact person for all residents, conducted social justice mediations, facilitated internal governance, enforced college policies, and organized 13 educational programs.