

MARIUM TAPAL

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PROFESSIONAL EXPERIENCE

HARVARD BUSINESS SCHOOL

Boston, MA

Research Associate (Data Scientist), LIFE Lab – Digital Data Design Institute

AUG 2022 - Present

- Conduct in-depth statistical analysis, optimize and write 2 custom algorithms, implement 10+ machine learning and deep learning models, and automate the creation of 3 types of reports using Python and R by writing 5000+ lines of code.
- Develop 3 presentations with 100+ slides each for audiences with an average size of 700.
- Support MBA course by analyzing data in real-time, creating custom reports, and preparing 100+ data-based slides.
- Partner with in-house and off-shore software engineers on development of 4 software products.
- Overhaul code repository, database, and documentation, improving usability for technical and non-technical collaborators.
- Collaborate closely with a product design company to revamp software by infusing 100+ new custom insights throughout, and rebuilding the front and back-end, resulting in a 100% increase in user satisfaction during testing.

SMITH COLLEGE STATISTICAL AND DATA SCIENCES

Northampton, MA

Data and Teaching Assistant, Spinelli Center for Quantitative Learning

SEP 2021 - MAY 2022

- Conducted 4 open hours per week as a general statistics and data science tutor.
- Supported 100+ students through Smith's introductory data science and statistics courses as a designated assistant.

Data Analyst, Baumer Lab

JAN 2020 - MAY 2022

- Built {fec16} R package containing 2016 election data on CRAN with 13000+ downloads that provides tools to load U.S. political election data using the ETL framework. 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 2021 - AUG 2021

- Spearheaded production of the {repytah} Python package for distribution via PyPI and Anaconda; updated 8 functions and wrote 1000+ lines of code. github.com/smith-tinkerlab/repytah
- Published an associated paper in the Journal of Open Source Software. joss.theoj.org/papers/10.21105/joss.05213

Data Science Intern, Prof. Albert Y. Kim

JUN 2020 - JUL 2020

- 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 enhancements. 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 2021 - DEC 2021

- 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 a 15 page report.

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 website made using R Markdown & HTML/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/mariumtapal/hateful-memes-paper

EDUCATION

SMITH COLLEGE

Northampton, MA

Bachelor of Arts in Statistical and Data Sciences & Mathematics

AUG 2018 - MAY 2022

- GPA: 3.97/4.00
- Awards: Cum Laude Honors, Phi Beta Kappa, Mu Sigma Rho, Dean's List (2018-2021)
- Clubs: Vice President & Data Mentor - Smithies in Statistical and Data Sciences, Cultural Chair - EKTA

ADDITIONAL INFORMATION

- Technical Skills: Python, R, SQL, Git/GitHub, LaTeX, HTML/CSS, MS Products
- Languages: Fluent in English, Urdu, Gujarati; Intermediate Proficiency in German