MEGHA JOSHI

I drive impact and growth by infusing teams with data-driven insights. Experienced statistician with strong quantitative background. Successfully led multiple quantitative projects, demonstrating proficiency in devising analytic strategies and communicating results to stakeholders.

EDUCATION

2021 — **The University of Texas at Austin**
PhD in Quantitative Methods — Austin, TX

2014 — **Bryn Mawr College**
BA in Art History and Psychology — Bryn Mawr, PA

WORK EXPERIENCE

2021 | Present — **Senior Quantitative Researcher**
American Institutes for Research — Austin, TX

- Directed multi-year projects evaluating educational programs and policies. Broke down projects into actionable tasks. Delegated the analytic tasks and mentored junior staff to drive research effectiveness.
- Developed complex SQL queries to extract, clean and analyze large relational datasets.
- Developed predictive models using supervised learning techniques, including linear and logistic regression, generalized boosted models and Bayesian Additive Regression Trees, to forecast outcomes.
- Led quantitative impact analyses by developing analytic strategies for projects using causal inference and machine learning.
- Procured contracts worth over $3M by leading research proposals and helping devise analytic strategies for new projects.
- Produced reports with intuitive visualizations of impact results for presentation to a non-technical audience. Automated report generation in R, reducing reporting time by 50%. Created dashboards presenting the results using R Shiny.

2021 — **Data Scientist**
Analyst Institute — Austin, TX

- Developed optimal codebase to conduct inferential analysis on data with over a hundred million rows and data with complex structures, ensuring accuracy and reducing analysis time by 40%.
- Designed the methodological and analytical strategy to conduct the inferential analysis. Solved methods related issues.

CONTACT INFO

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For more information, please contact me via email.

SKILLS

Statistical Software: R, Python, SQL

Version Control: Git

Project Management: Asana, Trello

RESEARCH INTERESTS

Causal inference

Meta-analysis

Machine learning

R PACKAGES

wildmeta

simhelpers

metaselection

*This resume was made with the R package **pagedown**.*

2021

Statistical Consultant
Freelance — Austin, TX

- Executed a meta-analysis examining the extent of bias in analyses of quasi-experimental designs that have different study characteristics. Implemented code to run meta-analytic models accounting for complex data structures.
- Produced graphs and tables displaying the results.

2016 | 2021

Graduate Research Assistant
The University of Texas at Austin — Austin, TX

- Led the methods team for a project examining the effects of teacher preparation programs on teacher retention in Texas.
- Evaluated the impact of a college preparatory program using propensity score analysis with generalized boosted modeling.
- Evaluated the impact of teacher preparation programs on teacher retention using survival analysis.
- Developed and implemented the analytical strategy.
- Produced reports and presentations detailing the results to be presented to a non-technical audience.

TEACHING EXPERIENCE

2015 | 2021

Graduate Teaching Assistant
The University of Texas at Austin — Austin, TX

- Assisted in the following courses: Causal Inference; Data Analysis, Simulation and Programming in R; Research Design; Survey of Multivariate Methods; Fundamental Statistics; and Statistics in Market Analysis.
- Led weekly problem-solving sessions through office hours; effectively communicated complex statistical methods to students; and, fostered interest in methodological research.

SELECTED PUBLICATIONS

2022

Cluster wild bootstrapping to handle dependent effect sizes in meta-analysis with a small number of studies
Research Synthesis Methods
Joshi, M., Pustejovsky, J. E., & Beretvas, S. N.

2019

The performance of multivariate methods for two-group comparisons with small samples and incomplete data
Multivariate Behavioral Research, Pages 1-18
Pituch, K. A., **Joshi, M.**, Cain, M. E., Whittaker, T. A., Chang, W., Park, R., & McDougall, G. J.

2019

Evaluating the Transition to College Mathematics course in Texas high schools: Findings from the first year of implementation
Greater Texas Foundation
Pustejovsky, J. E., & **Joshi, M.**