






# MEGHA JOSHI

Experienced statistician with strong background and interest in causal inference and meta-analysis. I have five years of experience in managing and leading research projects, analyzing large, complex datasets, and communicating results effectively.






## EDUCATION

- 2021 • **The University of Texas at Austin**  
PhD in Quantitative Methods  Austin, TX
- Advisors: Dr. Tasha Beretvas and Dr. James E. Pustejovsky
- Thesis: Cluster wild bootstrapping to handle dependent effect sizes in meta-analysis with small number of studies
- 2014 • **Bryn Mawr College**  
BA in Art History and Psychology  Bryn Mawr, PA

## RESEARCH EXPERIENCE

- 2021  
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Present • **Meta-Analysis Data Scientist**  
Analyst Institute  Austin, TX
- Conducted methodological literature review on Individual Participant Data Meta-Analysis (IPDMA) and recommended appropriate methods.
  - Consulted with analysts and research managers on solving methods related issues such as selecting appropriate cluster robust variance estimator, estimating marginal causal effects, and analyzing survey data.
- 2021 • **Statistical Consultant**  
The University of Texas at Austin  Austin, TX
- Conducted a meta-analysis examining the extent of bias in analyses of quasi-experimental design studies that have different study characteristics.
  - Implemented code to run subgroup correlated and hierarchical effects meta-analysis.
  - Produced graphs and tables displaying the results.
- 2020  
|  
Present • **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.
  - Integrated large relational datasets from the Texas Education Agency and the State Board for Educator Certification.
  - Conducted survival analysis to estimate the impact of the preparatory programs.
  - Drafted reports and presentations detailing the results.

## CONTACT INFO

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 [meghapsimatrix.com](http://meghapsimatrix.com)  
 [github.com/meghapsimatrix](https://github.com/meghapsimatrix)  
 469-235-3003  
 Austin, Texas

For more information, please contact me via email.

## SKILLS

Statistical Software: R, Python

Version Control: Git

Project Management: Asana, Trello

## RESEARCH INTERESTS

Causal inference

Meta-analysis

Missing data analysis

Machine learning

## R PACKAGES

[simhelpers 0.1.1](#)

[wildmeta 0.0.0.9000](#)

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

*Last updated on 2021-05-11.*

2017  
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2020

### Graduate Research Assistant

The University of Texas at Austin

📍 Austin, TX

- Evaluated the impact of a college preparatory program using propensity score analysis with generalized boosted modeling.
- Integrated large relational datasets from the Texas Education Agency and the Texas Higher Education Coordinating Board.
- Created technical reports on the findings; communicated findings to stakeholders.



## TEACHING EXPERIENCE

2015  
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Present

### 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.
- Effectively communicated complex statistical methods to students with little prior background in the field.



## PUBLICATIONS AND TECHNICAL PAPERS

2019

### Direct ties to a faculty mentor related to positive outcomes for undergraduate researchers

*BioScience*, Volume 69, Issue 5, Pages 389–397

Joshi, M., Aikens, M. L., & Dolan, E. L.

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.



## SELECTED CONFERENCE PRESENTATIONS

2019

### Cluster wild bootstrapping to handle dependent effect sizes in meta analyses with small numbers of studies

Poster session at the American Educational Research Association annual meeting

📍 Toronto, Canada

Joshi, M., Cappelli, P., Pustejovsky, J. E., & Beretvas, S. N.