

# Abhraneel Sarma

abhraneel@u.northwestern.edu  
abhsarma.github.io

---

## Research Interests

**Broadly:** I am interested in studying how people make sense of uncertainty information which arise in a typical data analysis pipeline.

**Recently:** I developed an R package for easily specifying multiverse analyses, which helps analysts to surface the uncertainty in their data analysis process itself; I have also worked on projects which investigate how users interpret uncertainty visualisations in missing data contexts or multiple comparison scenarios

## Education

- 2019 - present **PhD, Computer Science, Northwestern University**  
**Advisor:** Jessica Hullman, Matthew Kay
- 2016 - 2018 **Master of Science, Information, University of Michigan**  
HCI and Data Science specialization  
**Advisor:** Matthew Kay
- 2012 - 2016 **Bachelors in Design, Indian Institute of Technology Guwahati**  
Minor in Mechanical Engineering

## Publications

- 2023 **multiverse: Multiplexing Alternative Data Analyses in R Notebooks** (*In Review*)  
*Abhraneel Sarma, Alex Kale, Michael Moon, Nathan Taback, Fanny Chevalier, Jessica Hullman and Matthew Kay*  
CHI 2023: Conference on Human Factors in Computing Systems
- 2022 **Evaluating the Use of Uncertainty Visualisations for Imputations of Data Missing At Random in Scatterplots**  
*Abhraneel Sarma, Shunan Guo, Jane Hoffswell, Ryan Rossi, Fan Du, Eunyee Koh and Matthew Kay*  
VIS 2022: IEEE Transactions on Visualization and Computer Graphics  
**Best Paper Honorable Mention**
- 2020 **Prior Setting in Practice: Strategies and Rationales Used in Choosing Prior Distributions for Bayesian Analysis**  
*Abhraneel Sarma and Matthew Kay*  
CHI 2020: Conference on Human Factors in Computing Systems

- 2019 **Increasing the Transparency of Research Papers with Explorable Multiverse Analyses**  
Pierre Dragicevic, Yvonne Jansen, *Abhraneel Sarma*, Matthew Kay, and Fanny Chevalier  
CHI 2019: Conference on Human Factors in Computing Systems  
**Best Paper Award**

## Work Experience

- 2019 - present **Graduate Research Assistant**  
MUCollective, Northwestern University
- 2021 **Research Intern**  
Adobe, Inc  
**Mentor:** Shunan Guo
- 2016 - 2019 **Graduate Research Assistant** (*full time researcher, May 2018 onwards*)  
MUCollective, University of Michigan
- 2017 **User Experience Intern**  
Office of Academic Innovation, University of Michigan
- 2015 **Research Intern**  
Keio-NUS CUTE Center, National University of Singapore

## Teaching

**Teaching Assistant**, *JOUR377 Data Analysis and Visualization*  
Northwestern University

**Graduate Student Instructor**, *SI588 Fundamentals of Human Behavior*  
University of Michigan School of Information

**Graduate Student Instructor**, *SI330 Data Manipulation in Python*  
University of Michigan School of Information

## Invited Talks

- 2019 **Statistics and Scientific reporting: Can we do better?**  
Data Camp at the University of Michigan

## Service

- **as a reviewer (for conferences)**  
2021-23 CHI  
Special Recognitions for Outstanding Reviews: CHI 2021, CHI 2022

— as a student volunteer  
2018 IEEE VIS, Berlin, Germany  
2017 IEEE VIS, Phoenix, AZ, USA

## Grants

**MSI Travel Grant**, University of Michigan School of Information for CHI 2017  
**MSI Research Funding**, University of Michigan School of Information for data collection for Master's Thesis

## Skills

### Technical Skills

R, JavaScript, Python, SQL, C/C++ and Latex