

Marlie Tandoc

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PhD candidate with 6+ years of research on how people learn, process, and remember information

SKILL SUMMARY

End-to-End Research: Designed and conducted 30+ multi-disciplinary research projects; identified questions; collected, analyzed, and visualized data; communicated findings to diverse audiences (9 publications, 12 conferences)

Qualitative and Quantitative Methods: Lab experiments (online and in-person), Survey design, Usability studies, A/B Test, Qualitative coding, Semi-structured interviews

Programming & Research Tools: R (tidyverse, ggplot2, RMarkdown), JavaScript, Python, SQL, Git, Bash, Amazon Mechanical Turk, Qualtrics

Statistics: Regression, Multilevel Models, Correlation, Multivariate Analysis, Machine Learning

EDUCATION

PhD in Psychology | University of Pennsylvania 4.00 GPA 2019 - MAY 2024 (EXPECTED GRADUATION)

BS in Psychology Research, Media Studies | University of Toronto 3.87 GPA 2018

RESEARCH EXPERIENCE

PhD Researcher in Psychology | University of Pennsylvania 2019 - PRESENT, PHILADELPHIA, PA

- Designed, programmed (*JavaScript*), and executed 10+ complex online experiments (decision-making games, usability studies, surveys) to test how human decisions are susceptible to biases
 - Iteratively integrated user needs into design decisions by analyzing qualitative (survey, interviews) and quantitative data (time spent on web pages, A/B testing progress bars) of different web features
 - Wrangled, analyzed, and visualized data in *R* (regression, multilevel models) from 2000+ participants
 - Communicated research findings at the world's largest science conference (30 000+ scientists, industry professionals, journalists in attendance) as a talk format rarely awarded to students
- Designed an experiment that was awarded \$200k+ to use machine learning to "mindread" brain activity
 - Developed an analysis pipeline (*Python, Git, Bash*) to restructure and analyze brain data saving lab resources and 50+ hours of researchers' time per month
- Translated complex research results into shareable stories to diverse audiences (e.g. taught a high school class on how AI is used to mindread, gave presentations cross-functionally and across organizations)

Researcher | Mind Sciences Diversity Initiative MAR 2022 - PRESENT, PHILADELPHIA, PA

- Designed pre- post- surveys, analyzed data (*R*), and presented findings to program coordinators on how to improve a national weekend workshop that provides mentorship to underrepresented minority students

Researcher | Penn Data Science Group FEB - APR 2022, PHILADELPHIA, PA

- Operated within a strict timeline and limited resources to efficiently curate and analyze (*R*) climate data while translating client goals into concrete research plans
- Delivered an interactive heatmap visualizing air quality in Philadelphia which was used by clients (climate activists and researchers) to persuade climate policymakers

Research Manager & Undergraduate Researcher | University of Toronto 2016 - 2019, TORONTO, CA

- Collaborated cross-functionally with engineers and chemists to design, conduct, and analyze 6 lab experiments on how air quality impacts cognition (A/B test) leading to 2 publications (cited by 60+ multidisciplinary groups)
- Coded 20 000+ pages of rich qualitative data from 291 teenagers (probation reports, longitudinal surveys) and delivered actionable insights to Canada's largest mental health hospital
- Managed 20+ researchers while coordinating data collection across organizations and remote test sites
- Interviewed 1000+ families (phone, in-person) to collect demographic, mental health, and education data