

MONA ZHU

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SUMMARY OF KEY QUALIFICATIONS

- Data scientist with 10+ years of experience in data analytics, research, and mixed-methods research.
- Led and managed 20+ data projects, from experiment design and data acquisition to visualization.
- Proficiency in R, Python and SQL, including data wrangling, visualization, and package development.
- Experienced in developing data pipelines, statistical modeling, machine learning, and A/B testing.
- Strong presentation and communication skills, with the ability to translate data insights into business strategies.

PROFESSIONAL EXPERIENCE

Data Science Consultant @ Faber Technologies | Vancouver, BC Apr 2024 - June 2024
Faber Technologies is a tech startup that connects construction workers to 3000+ construction companies operating in 9 major cities across Canada and the US. A 2-month capstone project as part of UBC's Master of Data Science program.

- One of 4 data science consultants reporting to the CTO to build and test the viability of a predictive model of worker attendance reliability and performance.
- Developed and optimized an end-to-end data pipeline using SQL and Python in the span of 8 weeks.
- Identified key gaps and generated actionable recommendations to support future app development.

Behavioural Science Consultant @ BEworks | Toronto, ON Dec 2020 - June 2023
*BEworks is a behavioral economics consulting firm that aims to create innovative solutions backed up by data for policy and business challenges across various industries, such as financial & technology, healthcare, sustainability, and the public sector. **Left to pursue post-graduate education full time.***

- One of 6 Associates on the practice team reporting to a Senior Strategist.
- Led and supported 15+ consulting projects in fintech, sustainability, healthcare, consumer goods, and public sectors, delivering over \$400k+ in consulting services.
- Managed between 1-3 projects in a cross-functional organization, reallocating resources efficiently to ensure timely project delivery.
- Analyzed 50,000+ data responses across 10+ surveys and field experiments using R
- Generated data visualization and translated data insights into actionable recommendations across 30+ presentations, workshops, and reports.

Research Scientist @ Brain, Attention & Reality Lab | Vancouver, BC Sept 2020 - Nov 2020
The Brain, Attention & Reality Lab is situated in the Department of Psychology at UBC and studies human eye, head, and spatial movement through eye tracking and VR technology.

- One of 2 postdoctoral research scientists reporting to the lab director to develop reproducible analysis to examine head and eye movement in VR environments.
- Created a novel analysis pipeline to examine individual differences in head movement pattern using Gaussian mixture models in R within a 6 week period.

Research Scientist @ Cognition & Natural Behavior Lab | Waterloo, ON

Sept 2014 - Sept 2020

The Cognition & Natural Behavior Lab is housed in the Psychology department at the University of Waterloo and studies how humans perceive, attend to, and navigate the material environment and technology.

- One of 6 graduate research scientists reporting to the lab director to design, program, collect, and analyze data on 10,000+ participants.
- Led all aspects of 10+ research studies using mixed methods (experiments, surveys, observational data, etc) to study novel research questions on human spatial behavior, receiving \$200k in awards and grants.
- Conducted data analysis (hypothesis testing, linear and logistic regression, mixed-effects modeling, etc.) and translated research insights into 5 peer-reviewed research papers and 10+ scientific conference presentations.
- Managed and mentored a team of 5+ junior researchers, including delivering tutorials/workshops on data collection, programming, and data analysis.

SELECT PROJECTS

Measuring the impact of product rebranding

July 2022 - Jan 2023

- Designed panel studies using novel protocol to measure the impact of consumer goods branding
- Conducted quantitative and text analysis, created interactive graphic using ggplot2 and visNetwork

Reducing everyday household food waste

Oct 2022 - Feb 2023

- Developed and fine-tuned analysis pipeline on 2 longitudinal intervention that aimed to reduce household food waste using linear mixed-effects modeling in R
- Communicated analysis protocol and key findings in a high impact peer-reviewed [journal article](#)

Highlighting value proposition of online used vehicle sales

July 2022 - Jan 2023

- Analyzed existing used vehicle transactions to identify pain points in the customer journey
- Led 2 panel studies to examine service value proposition using conjoint analysis (CBC)

Seating arrangement in classrooms

July 2022 - Jan 2023

- Analyzed change in student seating behavior over time using archival data and spatial measurements
- Methodology and key insights were published in a peer-reviewed [journal article](#) and 2 academic conference presentations

EDUCATION

University of British Columbia, **Master of Data Science**

2023 - 2024

University of Waterloo, **MA, PhD, Cognitive Psychology**

2014 - 2020

SKILLS

Programming Languages: R, Python, SQL

Data Visualization/Dashboarding: ggplot2, matplotlib, altair, plotly, dash, shiny

Machine Learning: Scikit-learn, PyTorch

Statistical Analysis: Hypothesis testing, (Generalized) linear models, Mixed-effects models, Bayesian models

Data Processing: pandas, dplyr, SQL

Tools: Jupyter Notebooks, RStudio, Git, Docker

Soft Skills: Project management, Stakeholder communication, Client relation management, Team leadership