YIWEN ZHANG

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EDUCATION

University of Pittsburgh Pittsburgh, PA
- Ph.D in Psychology (Cognitive) with Quantitative Minor, GPA 4.0 2019 – 2024
- M.S. in Psychology (Cognitive) 2019 – 2021

Zhejiang University Hangzhou, China
- B.S. in Psychology, GPA 3.88/4.0 (honored graduation, ranked #1 in Department of Psychology) 2015 – 2019

RESEARCH TOPICS

- I'm passionate about using randomized control experiments and computational models to investigate human causal learning, especially how people learn cause and effect relationship in their day to day life.

SELECTED EXPERIENCE

Graduate Student Researcher, University of Pittsburgh **Sept 2019 – present**
- **Lead researcher on various projects on causal learning in real life.** Designed randomized control experiments to investigate human causal inference.
- Performed large-scale data analysis and computational modeling including **regression models** and **Bayes analysis**. Developed **computational models** of human behavior, used simulations to test different hypothesis of human causal inference.
- Developed a smartphone-based app and a time-scheduling-reminder system for users to complete the experiments remotely and in their daily life. Shared the experiment as a template for designing, programming, and running Psychology experiments in the cloud, wrote tutorials and instructions.

UX Researcher Intern, Meta Platforms, Inc. **May 2022 – August 2022**
- Lead researcher on WhatsApp Feature Awareness Project. Designed **off-platform feature awareness surveys with 200+ questions including 60 main features** on WhatsApp and investigated users' perceived need, awareness, comprehension, and usage of the main features.
- Survey results helped the team to **address several important questions**: (1) which feature need to be prioritized for improve; (2) how feature awareness changed over time; (3) the behavior patterns of younger users and users with low digital literacy; (4) features awareness comparison between WhatsApp and competitor apps.
- Presented the research results at 2 cross functioning teams and **helped them make decision about feature improvement.**

PUBLICATIONS & POSTERS

Zhang, Y. & Rottman, B. M. (under review). Casual Learning with Delays Up to 21 Hours. *Psychonomic Bulletin & Review*

Zhang, Y. & Rottman, B. M. (In preparation). Causal Learning with Interrupted Time Series Data.

Zhang, Y. & Rottman, B. M. (2021). Casual Learning with Delays Up to 21 Hours. *Proceedings of the 43rd annual conference of the cognitive science society.*

Zhang, Y. & Rottman, B. M. (2021). Casual Learning with Interrupted Time Series. *Proceedings of the 43rd annual conference of the cognitive science society.*

Zhang, Y., Yang, Z., Liang, J., Wu, F., Gao, Z. (2018, July). Object-based Attention, not Spatial Attention, is Critical for Encoding Feature Binding in Visual Working Memory. *14th Asia-Pacific Conference on Vision and the 3rd China Vision Science Conference*.

SIDE PROJECTS

An ACT-R model of Human Feedback Learning March 2022 - May 2022
- Designed and developed an ACT-R model to simulate the interaction between reinforcement learning and working memory during human feedback learning.

A Machine Learning Approach to Predict Human Causal Judgement March 2020 - May 2020
- Explored using machine learning classifiers to predict human causal judgement by comparing performance of different ML algorithms (Naïve Bayes, J48, LWL, SVM) by cross-validation. Trained and optimized a model by using bagging with J48 classifier to predict causal judgement in a psychology experiment

SKILLS

- Stats expertise: Bayesian Modeling, Regression, Hierarchical and Mixed Effects Modeling, Categorical Data Analysis, Reinforcement Learning，Resampling(Cross Validation, Bootstrap)
- Working with data: R (tidyverse), Tableau, Python (numpy, pandas), d3.js, SQL, SPSS
- Web development: JavaScript, HTML/CSS, Vuejs, Flask, Github, Google Cloud, Google firestore