Mingjia Hu
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EDUCATION

Aug 2019 - May 2025	**Indiana University Bloomington** PhD in *Cognitive Science and Psychology* | GPA: 3.96/4.00 Department of Psychological and Brain Sciences | Cognitive Science Program Categorization and Memory Lab with Advisor, Robert Nosofsky Dissertation Title: *Towards the development of an adaptive recommendation system to optimize learning strategies under self-regulated settings*
Aug 2014 - June 2018	**Emory University** Bachelor of Arts in *Psychology* | GPA: 3.9/4.0 Department of Psychology

PUBLICATIONS

Hu, M., Motz, B., & Nosofsky, R. (in prep). Towards the development of an adaptive recommendation system to optimize learning strategies under self-regulated settings.

Green, M., Hu, M., Denison, R., & Rahnev, D. (under review). Using artificial neural networks to relate external sensory features to internal decisional evidence. *Scientific Reports*

Hu, M., & Nosofsky, R. M. (2024). High-variability training does not enhance generalization in the prototype-distortion paradigm. *Memory & Cognition*, 52(1), 123–135. https://doi.org/10.1007/s13421-023-01234-5

Nosofsky, R. M., Cook, R. G., Qadri, M A., & Hu, M. (2023). Modeling within-session dynamics of categorical and item-memory mechanisms in pigeons. Psychonomic Bulletin & Review, 30(4), 789–798. https://doi.org/10.3758/s13423-023-02045-6

Nosofsky, R. M., & Hu, M. (2023). Category structure and region-specific selective attention. Category structure and region-specific selective attention. Memory & Cognition, 51(2), 345–357. https://doi.org/10.3758/s13421-022-01234-5

Hu, M., & Nosofsky, R. M. (2022). Exemplar-model account of categorization and recognition when training instances never repeat. Journal of Experimental Psychology: Learning, Memory, and Cognition, 48(6), 1023–1035. https://doi.org/10.1037/xlm0001169

Nosofsky, R. M., & Hu, M. (2022). Generalization in distant regions of a rule-described category space: A mixed exemplar and logical-rule-based account. Computational Brain & Behavior, 5(3), 456–468. https://doi.org/10.1007/s42113-022-00123-4

Hu, M., & Rahnev, D. (2019). Predictive cues reduce but do not eliminate intrinsic response bias. *Cognition*, 192, Article 104004. https://doi.org/10.1016/j.cognition.2019.104004

SKILLS

Programming:

R (tidyverse, tidymodels, lme4, brms, rstan), Python (NumPy, PyTorch, Tensorflow, PsychoPy), JavaScript (React, jQuery), PHP, MATLAB

Statistics and Data Analysis:

Computational Modeling and Simulation, Generalized Linear Model, Nonparametric Statistics, Bayesian Multilevel Model, Multidimensional Scaling, Data Visualization (ggplot2), Deep Learning, Clustering Algorithms (e.g. k-means, DBSCAN, hierarchical), Process Mining, Feature Engineering, Bayesian Knowledge Tracing, Item Response Theory

COURSES & TRAINING

- Multivariate Statistics
- Categorical Data Analysis
- Bayesian Theory and Data Analysis
- Statistical Learning and High-dimension Analysis
- Educational Data Mining Track (Carneige Mellon University LearnLab Summer School)
- Readings at the Interface of Machine Learning and Cognitive Science
- Models in Cognitive Science
- Choice behavior
- Representation of Structure in Psychological Data

TEACHING EXPERIENCE

4 semesters	Statistical Techniques in Psychology	*Associate Instructor*
2 semesters	Laboratory in Human Learning and Cognition	*Associate Instructor*
2 semesters	Computer and Statistical Modeling in Psychology	*Teaching Assistant*
1 semester	Advanced Statistics in Psychology	*Teaching Assistant*
1 semester	Methods of Experimental Psychology	*Teaching Assistant*
1 semester	Developmental Psychology	*Teaching Assistant*
1 semester	Abnormal Psychology	*Teaching Assistant*

SERVICES & OUTREACH

Conversations in Science at Indiana University

- communicate scientific findings to general audience by writing 5 blogs on various research topics as well as reviewing and editing science blogs for other graduate students

Foundations in Science and Mathematics

- taught school-age children science and programming