

Han, Zhixian

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EDUCATION

- 2019 - present **Ph.D. student in Psychology (Mathematical and Computational Cognitive Science area)** at Purdue University (GPA: 3.98/4.00)
- 2021 - present **Joint M.S. student in Statistics and Computer Science** at Purdue University (GPA: 3.98/4.00)
- 2017 - 2019 **M.S. in Physics** at Brown University (GPA: 3.56/4.00)
- 2014 - 2017 **B.S. in Physics and Psychology** at University of Minnesota, Twin Cities (GPA: 3.87/4.00)
- 2012 - 2014 Undergraduate student major in Physics at Sichuan University (GPA: 86.96/100.00)

PUBLICATIONS

- Sereno, A. B., & **Han, Z.** . (2023). Independence, not interactions: What simulations suggest about ventral and dorsal pathways. *Journal of Vision*, 23(9). doi: 10.1167/jov.23.9.4606
- Han, Z.** , & Sereno, A. (2022a). Modeling the ventral and dorsal cortical visual pathways using artificial neural networks. *Neural Computation*, 34(1), 138 - 171. doi: https://doi.org/10.1162/neco_a.01456
- Han, Z.** , & Sereno, A. (2022b). Identifying and localizing multiple objects using artificial ventral and dorsal visual cortical pathways.. Retrieved from <https://docs.lib.purdue.edu/modvis/2022/session01/3/> (Computational and Mathematical Models in Vision)
- Han, Z.** , & Sereno, A. (2023a). Is it always computationally advantageous to use segregated pathways to process different visual stimulus attributes separately? *Journal of Vision*, 23(9). doi: 10.1167/jov.23.9.5020
- Han, Z.** , & Sereno, A. (2023b). Space: The best kind of map for constraining the binding problem? *In Preparation*.
- Han, Z.** , & Sereno, A. (2023a). Identifying and localizing multiple objects using artificial ventral and dorsal cortical visual pathways. *Neural Computation*, 35(2), 249 - 275. doi: https://doi.org/10.1162/neco_a.01559
- Han, Z.** , & Sereno, A. (2023b). Constraining the binding problem using maps.. Retrieved from <https://docs.lib.purdue.edu/modvis/2023/session03/2/> (Computational and Mathematical Models in Vision)

MENTORSHIP EXPERIENCE

Content Reviewer – Neuromatch Academy, Inc.

May 2022

(Deep Learning Summer Course 2022)

- Help test new material for the course by completing tutorials and providing feedback.
- Lead the discussions with other content reviewers.

(Computational Neuroscience Summer Course 2021)

- Guide small groups (10) of students in all aspects of live online learning. This includes guiding students in completion of code-based tutorials, guiding students in contextualizing the problemsets, and guiding students in developing peer-programming and self-learning skills.
- Guide students in their final project.
- Manage and provide support for 7-8 junior teaching assistants.

SKILLS

Python, MATLAB, Mathematica, C++, SQL

Machine Learning, Artificial Neural Networks