Sixing Chen

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EDUCATION

New York University, New York, NY — Expected May 2028
Ph.D. in Cognition & Perception
Quantitative Concentration | Relevant coursework: Reinforcement Learning, Computational Cognitive Modeling, Neural Network Models, Information Theory

Peking University, Beijing China — Jun 2023
B.S., Psychology

RESEARCH EXPERIENCE

New York University, Department of Psychology — Sep 2023 – Present
Graduate Researcher, Advisor: Marcelo Mattar
- Investigate how humans plan and reason and build machines that plan and reason like humans.
- Build agents using deep reinforcement learning and meta-learning to explain and predict eye-tracking data and neural recordings.

Georgia Institute of Technology, School of Psychology — Jan 2022 – Jun 2023
Research Assistant, Advisor: Dobromir Rahnev
- Designed behavioral experiments to study how cognitive factors shape perceptual decision-making.
- Analyzed large-scale behavioral datasets to characterize how humans monitor and report confidence in their decisions.

Peking University, School of Psychological and Cognitive Sciences — Sep 2020 – Jun 2023
Research Assistant, Advisor: Hang Zhang
- Modeled human representation of temporal uncertainty about future events.
- Developed computational models to explain and predict behavioral data in time-based decision-making.

PUBLICATIONS & PREPRINTS

Chen, S., Jensen, K. T., & Mattar, M. G. (under review). Rational decisions in multi-step environments with few rollouts. *PsyArXiv*.

Gao, Y., **Chen, S.**, & Rahnev, D. (2025). Dynamics of sensory and decisional biases in perceptual decision making: Insights from the face distortion illusion. *Psychonomic Bulletin & Review, 32*(1), 317-325.

Chen, S., Jensen, K. T., & Mattar, M. G. (2024). Some and done? Temporally extended decisions with very few rollouts. In *Proceedings of the Annual Meeting of the Cognitive Science Society* (Vol. 46).

Chen, S., & Rahnev, D. (2023). Confidence response times: Challenging postdecisional models of confidence. *Journal of Vision, 23*(7), 11-11.

Chen, S., & Rahnev, D. (under review). Signatures proposed to index perceptual effects emerge in a purely cognitive task. *PsyArXiv.*

CONFERENCE PRESENTATIONS

Chen, S., Callaway, F., Kumar, S., & Mattar, M. G. (Jun. 2025). Meta-learning of human-like planning strategies. *Multi-disciplinary Conference on Reinforcement Learning and Decision Making (RLDM)*, Dublin, Ireland. **[oral presentation]**

Chen, S., Jensen, K. T., & Mattar, M. G. (Jul. 2024). Some and done? Temporally extended decisions with very few rollouts. *Annual Meeting of the Cognitive Science Society (CogSci)*, Rotterdam, Netherlands.

Chen, S., Jensen, K. T., & Mattar, M. G. (Mar. 2024). Some and done? Temporally extended decisions with very few rollouts. *Computational and Systems Neuroscience (COSYNE)*, Lisbon, Portugal.

Chen, S., Wang M., & Zhang, H. (Nov. 2022). The alternation of human temporal beliefs between different possibilities. *Society for Neuroscience (SfN),* San Diego, CA, United States.

AWARDS & SCHOLARSHIPS

Engberg Fellowship, New York University 2023
Award for Merit Student, Peking University 2021
Fenjiu Group Public Scholarship, Peking University 2021

TEACHING EXPERIENCES

Teaching Assistant for *Lab for Cognition and Perception,* New York University Feb 2025 – Jun 2025
Teaching Assistant for *Computational Modeling for Psychology and Neuroscience,* Peking University Feb 2022 – Jun 2022

TECHNICAL SKILLS

Programming: Python, PyTorch, R, JavaScript, MATLAB
ML/AI: Deep Learning, Reinforcement Learning, Meta-learning, Probabilistic Models
Tools: Git, Linux, SLURM, Jupyter