Fukun (Evelene) Zhang

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EDUCATION

University of Southern California, Los Angeles, CA 2025-Present

PhD in Psychology, Brain and Cognitive Science

Advisor: Dr. Payam Piray

Carleton College, Northfield, MN 2021-2025

BA in Cognitive Science with Distinction

- Thesis: *Will the Sun Rise in the East tomorrow? Exploring the Role of Implicit Prior Knowledge in Causal Inductive Reasoning*

BA in Mathematics

- Thesis: *Exploring Decision-Making through the Fokker-Planck Equation and Agent-Based Modeling*

Summer Schools & Study Abroad Program

Computational Neuroscience, Neuromatch Academy Summer, 2025

Budapest Semester in Mathematics, Budapest, Hungary Fall, 2024

- Introduction to Deep Learning, Theory of Computing, Mathematics of Network Science

Summer School on Mathematical Neuroscience, August, 2024

Institute for Theoretical Sciences, Hangzhou, China

SKILLS & INTERESTS

- *Computational Models:* Bayesian Inference, Machine Learning, Reinforcement Learning, Deep Learning
- *Analytical Programming Languages*: Python, R, MatLab, Java, Mathematica
- *Front-end Programming:* Javascript, HTML, Swift
- *Languages*: Chinese (native), English (fluent), French & German (beginning)

PUBLICATIONS & WORKSHOP

Zhang, F.E., & Tancredi, S. (2025). Exploring the Impact of Cognitive and Sensorimotor Activity on Arousal in an Embodied Learning Environment. Proceedings of the Annual Meeting of the Cognitive Science Society, 47. Retrieved from https://escholarship.org/uc/item/8sk663vb

Zhang, F. E., & Zhao, B. (2024). The Art of Knowing When to Stop: Analysis of Optimal Stopping in People and Machines. In *Proceedings of the 4th Workshop on Mathematical Reasoning and AI at NeurIPS'24.*

Sar-Israel, M., **Zhang, F. E.**, Liu, Y., & Tancredi, S. (2024). Tracking Sensory Regulation During Embodied Learning with Electrodermal Activity: A Comparative Case Study. In *Proceedings of the 18th International Conference of the Learning Sciences-ICLS 2024, pp. 1514-1517*. International Society of the Learning Sciences.

RESEARCH EXPERIENCE

Princeton Computational Cognitive Science of Collaboration Lab Summer 2024-February 2025

Prof. Natalia Vélez (PI), Princeton University

Research Assistant, supervised by Dr. Bonan Zhao and Prof. Natalia Vélez (PI)

Embodied Design Research Lab Summer 2023-February 2025

Prof. Dor Abrahamson (PI), University of California, Berkeley

Research Assistant, supervised by Dr. Sofia Trancredi and Prof. Dor Abrahamson (PI)

Mathematical Approaches to Solve the Archaeological Refit Problem Summer 2022-2023

Prof. Robert Thompson, Carleton College

Research Assistant, supervised by Prof. Robert Thompson

PRESENTATIONS AND CONFERENCES

Zhang, F.E., & Tancredi, S. (2025). Exploring the Impact of Cognitive and Sensorimotor Activity on Arousal in an Embodied Learning Environment. Proceedings of the Annual Meeting of the Cognitive Science Society, 47.

Zhang, F. E., & Zhao, B. (2024). The Art of Knowing When to Stop: Analysis of Optimal Stopping in People and Machines. In *Proceedings of the 4th Workshop on Mathematical Reasoning and AI at NeurIPS'24.*

Zhang, F. E., Zhao, B., Vélez, N. (2024) Heuristic Models of Belief Update in a Discovery Game. Princeton Neuroscience Institute Summer Undergraduate Poster Session, Princeton, NJ.

Sar-Israel, M., **Zhang, F. E.**, Liu, Y., & Tancredi, S. (2024). Tracking Sensory Regulation During Embodied Learning with Electrodermal Activity: A Comparative Case Study. In *Proceedings of the 18th International Conference of the Learning Sciences-ICLS 2024, pp. 1514-1517*. International Society of the Learning Sciences.

Zhang, F. E., Joseph N., Thompson R. (2022). Mathematical Approaches to Solve the Archaeological Refit Problem.

- Mathematical Association of America (MAA) Mathfest, Poster Session, Philadelphia, PA.
- Northfield Undergraduate Mathematics Symposium (NUMS), Northfield, MN.
- Carleton College Undergraduate Research and Internship Symposium, Northfield, MN.

AWARD

The Roy O. Elveton Prize Fund in Cognitive Science and Philosophy June 2025

FUNDING

Carleton College Career Center Travel Grant ($400) Fall 2024

Towsley Conference Funding Conference Travel Award ($750) Fall 2024

Eugster Endowed Student Research and Internship Fund ($6200) Summer 2024

Trustee Endowed Internship Fund ($6200) Summer 2023

Harry A. and Margaret D. Towsley Foundation ($5000) Summer 2022

ADDITIONAL EXPERIENCES

Mathematics Department Grader at Carleton College 2023 ~ 2025

Chinese Ensemble (Double Bass) 2023 ~ 2025