Curriculum Vitae

Yiyang(Daphne) Zhang

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Education

BS, Cognitive Science with specialization in computating 2021-2025

University of California, Los Angeles. GPA: 3.91/4.0 (Major GPA: 4.0/4.0)

Relevant coursework: Sensation and Perception, Behavioral Neuroscience, Psychological Statistics, Advanced Matlab, Python with Applications, Introduction to Machine Learning

Publications

Zhu, H., **Zhang, Y.,** Beierholm, U., Shams, L. (2025). Crossmodal Interaction of Flashes and Beeps Across Time and Number Follows Bayesian Causal Inference. [Under review in psychonomic bulletin & review].
Preprint: https://www.biorxiv.org/content/10.1101/2025.03.13.643161v1

McGee, T., **Zhang, Y.,** Blank, I, (2025). Evidence against Syntactic Encapsulation in Large Language Models. [Under review in Cognitive Science].

Johnson, M. A., Keser, Z., Lammers, B., Sydnor, M., Murter, J., **Zhang, Y.,** Sadil, P., Desmond, J. E., Hillis, A. E., Lindquist, M. A., Sebastian, R. (2025). White Matter Predictors of Cerebellar tDCS Treatment Effects in Aphasia Rehabilitation. [Under review in Frontiers].

Zhang, Y., Ivan, S., Shams, L. (2025).Vibrotactile Stimulation Modulates Arousal but Not Performance Under Cognitive Load. [Manuscript in preparation].

Zhang, Y., Schoeller, F., Reggente, N. (2025). Examining the relationship between peak emotional reward (aesthetic chills) and memory/time perception. [Manuscript in preparation].

Conference Presentations

Posters

Zhu, H., **Zhang, Y.,** Shams, L. (2024 October). Multidimensional Bayesian Causal Inference Modulates Multisensory Perception. Brain Research Institute Neuroscience Retreat and Poster Day, UCLA, California.

Zhang,Y., Schoeller,F., Reggente, N. (2025 May). Aesthetic Chills and the Mind: How Frisson Influences Time Perception and Memory. UCLA Undergraduate Research Week, UCLA Psi Chi Conference, Undergraduate Interdisciplinary Research Association(UIRA) Poster Day

Data Blitz

Zhang, Y., Ivan, S., Shams, L. (2025 May). Investigating The Transient Effects Of Vibrotactile Stimulation On Stress Regulation. 2025 UCLA Psychology Undergraduate Research Conference (PURC).

Honors and Awards

URC-HASS Summer Fellowship 2024 ($3,000) 2024
Psychology Departmental Honors Program 2024

Research Experience

Research Assistant (PI: Ladan Shams) Apr 2024 – Present
Multisensory Processing Lab, Department of Psychology, UCLA

- Investigated the Sound-Induced Flash Illusion through Bayesian Causal Inference models beyond unidimensional settings to understand perceptual decision-making.
- Investigates how numerical expectations (jersey numbers) influence body-size perception by adapting and applying a Bayesian inference framework to experimental data.

Honors Thesis, Psychology (PIs: Ladan Shams, Naomi Eisenberger) May 2024 – Jun 2025
UCLA Psychology department

- **Project Goal**: to Understand the potential applications of tactile feedback in areas such as stress management, emotional regulation, and biofeedback systems.
- Investigated how vibrotactile stimulation influences physiological arousal and emotional state.
- Designed and conducted an independent study using Biopac to collect ECG, PPG, and GSR data; analyzed data with t-tests and linear mixed-effects models in Python/R.
- Found that vibration selectively reduced subjective arousal without impairing task performance; authored full honors thesis manuscript.

Project Leader (PIs: Nicco Reggente, Idan Blank) May 2024 – Present
UCLA Psi Chi & Institution for Advanced Consciousness Studies

- Led a research team; Presented controversial findings at conferences and led manuscript preparation.
- **Project Goal**: To Investigate how peak emotional experiences (“aesthetic chills”) shape people’s perception of time and memory to inform design of emotionally engaging interactive systems.
- Designed and implemented a survey-based paradigm in Qualtrics, presenting emotion-inducing video stimuli and collecting measures of chills intensity, time estimation, and memory recall.
- Incorporated validated psychological scales (PANAS, KAMF, MAIA, MODTAS) to assess how personality, affect, and interoception modulate susceptibility to chills.

Student Researcher (Mentor: Arefeh Sherafati, Gal Vishne) Jul 2025
Neuromatch Academy – Computational Neuroscience

- Completed a 3-week intensive course in ML, dynamical systems, stochastic processes;
- Group project: Investigated serial dependence in motion perception by extending Laquitaine & Gardner’s (2018) switching-observer model.

Research Assistant (PI: Idan Blank) Jan 2024 – Present
BlankLang Lab

- Investigated whether large language models distinguish between syntactic and semantic information, integrating human judgment experiments with model analyses;

Technical Skills

- Matlab, Python, RStudio, PsychoPy, FSL, Eye-tracking, Biopac, and Statistical analysis