Zoe (Jing) Xu

Website | Linkedin | Google Scholar | zoejingxu@ust.hk

ACADEMIC POSITIONS

- **Research Assistant Professor**, Hong Kong University of Science and Technology (HKUST)   Feb 2026 – present
- **Post-Doctoral Scholar**, University of Washington   July 2024 – Jan 2026
  - Research focus: Visual processing in Autism Spectrum Disorder, Neural mechanism in visual search
  - Advisor: Dr. Scott Murray

EDUCATION

- **Ph.D.** in **Psychology**, University of Illinois at Urbana-Champaign (UIUC)   Aug 2019 – May 2024
  - Dissertation title: Target-distractor distinctiveness guides efficient search
  - Advisors: Drs. Simona Buetti & Alejandro Lleras
- **M.S.** in **Psychological Science**, UIUC   Aug 2017 - May 2019
- **M.S.** in **Advertising**, UIUC   Aug 2015 - May 2017
- **B.S.** in **Psychology** (double major), Central China Normal University, China   March 2013 - Jun 2015
- **B.A.** in **Advertising**, Wuhan University, China   Sep 2011 – Jun 2015

HONORS & AWARDS

- Graduate College Conference Travel Award, UIUC   2024
- Dissertation Completion Fellowship, UIUC   2023-2024
- Psychology Department Conference Presentation Award, UIUC   2022
- Graduate Award for Excellence in Psychological Science, UIUC   2019
- Academic Achievement Scholarship, Wuhan University   2012-2013
- Excellence Creative Award at the Fifth College Students' Advertising Art Competition   2013

PUBLICATIONS

1. **Xu, Z. J.,** Lleras, A., & Buetti, S. (2026). Toward a better understanding of target distinctiveness in visual search: How color, shape, and texture information combine to guide search. *Journal of Experimental Psychology: General.*
2. Tan, H.J.H., Lleras, A., **Xu, Z. J.**, Ding, Y., & Buetti, S. (in press) Evaluating the contributions of top-down and bottom-up processing on eye movements during parallel visual search. *Attention, Perception, & Psychophysics.*
3. Lleras, A., **Xu, Z. J.**, Tan, H. J. H., Shao, Y., & Buetti, S. (2025). Quantifying the relationship between search efficiency and perceptual similarity in color space across different efficient search tasks. *Journal of Experimental Psychology: Human Perception and Performance*, *51*(7), 850–874.
4. Cui, A. Y., Buetti, S., **Xu, Z. J.**, & Lleras, A. (2025). Evaluating the Contribution of Parallel Processing of Color and Shape in a Conjunction Search Task. *Scientific Reports*, *15*(1), 7760.
5. **Xu, Z. J.**, Lleras, A., Gong, Z.G., & Buetti, S. (2024) Top-down instructions influence the attentional weight on color and shape dimensions during bidimensional search. *Scientific Reports*, *14*(1), 31376.
6. **Xu, Z. J.**, Buetti, S., Xia, Y., & Lleras, A. (2024). Skills and cautiousness predict performance in difficult search. *Attention, Perception, & Psychophysics*, *86*(6), 1897-1912.
7. Lleras, A., Buetti, S., & **Xu, Z. J.** (2022). Incorporating the properties of peripheral vision into theories of visual search. *Nature Reviews Psychology*, *1*(10), 590-604.
8. **Xu, Z. J.**, Lleras, A., Shao, Y., & Buetti, S. (2021). Distractor-distractor interactions in visual search for oriented targets explain the increased difficulty observed in non-linearly separable conditions. *Journal of Experimental Psychology: Human Perception and Performance*, *47*(9), 1274.
9. **Xu, Z. J.**, Lleras, A., & Buetti, S. (2021). Predicting how surface texture and shape combine in the human visual system to direct attention. *Scientific reports*, *11*(1), 6170.

10. Lleras, A., Wang, Z., Ng, G. J. P., Ballew, K., **Xu, J.**, & Buetti, S. (2020). A target contrast signal theory of parallel processing in goal-directed search. *Attention, Perception, & Psychophysics*, *82*, 394-425.
11. Buetti, S., **Xu, J.**, & Lleras, A. (2019). Predicting how color and shape combine in the human visual system to direct attention. *Scientific Reports*, *9*(1), 20258.

PUBLICATIONS IN PREPARATION

1. **Xu, Z. J.**, Woodard, K. M., Qiu, S., Leonard, B., Murray, S. O. (in preparation). Identifying neural activity of target template matching and attentional modulation during visual search.
2. **Xu, Z. J.**, Leonard, B., Woodard, K. M., Murray, S. O. (in preparation). Visual search skills among autistic and neurotypical adults.
3. **Xu, Z. J.**, Spjut, J., Boudaoud, B., Buetti, S., Lleras, A., & Rosenholtz, R. (in preparation). Who searches better: action video game players or non-players?
4. **Xu, Z. J.**, Yu, J., Lleras, A., Buetti, S. (in preparation) Predictability changes the way feature dimensions combine to guide search.
5. Yu, J., **Xu, Z. J.**, Lleras, A., Buetti, S. (in preparation). Exploring the Impact of Target-Distractor Featural Contrast on Feature Prioritization in Efficient Visual Search.
6. **Xu, Z. J.**, Buetti, S., Peng, Y. & Lleras, A. (in preparation). Examining linear separability in color space.

CONFERENCE PRESENTATIONS

Talk Presentation

1. **Xu, Z.J.**, Spjut, J., Boudaoud, B., Buetti, S., Lleras, A., & Rosenholtz, R. (2024, May). Do action video game players search faster than non-players? **Talk** given at the Annual Meeting of the Vision Sciences Society (VSS).

Poster Presentations

1. **Xu, Z. J.**, Leonard, B., Woodard, K. M., Murray, S. O. (2025, September) Visual Search Skills Among Autistic and Neurotypical Adults. **Poster** presented at the 11th Emerging Vision Scientist Poster Reception.
2. **Xu, Z. J.**, Yu, J., Lleras, A., Buetti, S. (2025, May) Investigating the contribution of unpredictable target features to attentional guidance. **Poster** presented at the Annual Meeting of the Vision Sciences Society (VSS).
3. Yu, J., **Xu, Z. J.**, Lleras, A., Buetti, S. (2025, May) Exploring the Impact of Target-Distractor Featural Contrast on Feature Prioritization in Efficient Visual Search. **Poster** presented at VSS.
4. Gong, Z., **Xu, Z. J.**, Lleras, A., & Buetti, S. (2024, May). Top-down instructions influence the attentional weight on color and shape dimensions during redundant search. **Poster** presented at VSS.
5. Tan, H. J., **Xu, Z. J.**, Lleras, A., & Buetti, S. (2024, May). Evaluating the contributions of top-down and bottom-up processing on eye movements during parallel visual search. **Poster** presented at VSS.
6. Lleras, A., **Xu, Z. J.**, Tan, H. J. H., Shao, Y., & Buetti, S. (2024, May). On the relationship between target-distractor discriminability and search efficiency: the case of color. **Poster** presented at VSS.
7. **Xu, Z. J.**, Lleras, A., Hummel, J. E., & Buetti, S. (2023, May). Does visual distinctiveness from an unexpected feature dimension facilitate search? **Poster** presented at VSS.
8. **Xu, Z. J.**, Lleras, A., Hummel, J. E., & Buetti, S. (2022, May). Distractor heterogeneity as the cause of the linear separability effect. **Poster** presented at VSS.
9. Tan, H. J., Buetti, S., **Xu, Z. J.**, Lleras, A. (2022, May). Testing feature boosting theories of visual attention in the color dimension using online experiments. **Poster** presented at VSS.
10. **Xu, Z. J.**, Ng, G., Lleras, A., Hummel, J. E., & Buetti, S. (2021, May). How does multidimensional complexity impact processing efficiency in visual search. **Poster** presented at VSS.
11. **Xu, J.**, Lleras, A., & Buetti, S. (2020, November). A new prediction-based approach to study visual search and attention. **Poster** presented at the Annual Meeting of the Psychonomic Society.

12. Buetti, S., Shao, Y., **Xu, J.**, & Lleras, A. (2020 May). Re-examining the linear separability effect in visual search for oriented targets. **Poster** presented at VSS.
13. **Xu, J.**, Lleras, A., & Buetti, S. (2020 May). How texture and shape distinctiveness combine in the visual system to guide attention? **Poster** presented at VSS.
14. **Xu, J.**, Ballew, K., Lleras, A., & Buetti, S. (2019, May). Do people's visual ability skill predict search efficiency under difficult search conditions? **Poster** presented at VSS.
15. Ballew, K., **Xu, J.**, Lleras, A., & Buetti, S. (2019, May). An individual differences investigation of the relationship between visuospatial working memory capacity and inefficient search. **Poster** presented at VSS.
16. Yang, B., **Xu, J.**, Zhang, F., Buetti, S. (2019, April) Does time perception of emotional events vary across Asian and Westerner participants? **Poster** presented at UIUC undergraduate research symposium.
17. **Xu, J.**, Lleras, A., & Buetti, S. (2018, May). Is there a relationship between object recognition ability and visual search efficiency? **Poster** presented at VSS.
18. Lleras, A., **Xu, J.**, & Buetti, S. (2018, May). How do differences across visual features combine to determine visual search efficiency in parallel search? **Poster** presented at VSS.

INVITED TALKS

1. Chinese University of Hong Kong, Shenzhen, Division of Applied Psychology   July 2025
2. University of Nebraska, Omaha, Department of Psychology   May 2025
3. University of Washington, Department of Psychology, Cognition & Perception Brown Bag   April 2025
4. Idaho State University, Department of Psychology   January 2025
5. UIUC, Department of Psychology, Attention & Perception (A&P) Brown Bag   April 2024
6. UIUC, Department of Psychology, Developmental Brown Bag   February 2024
7. University of Washington, Department of Psychology, Vision + Cognition group   January 2024
8. Johns Hopkins University, Lions Vision Research & Rehab Center, Wilmer Eye Institute   December 2023
9. University of California Santa Babara, Bionic Vision Lab   October 2023
10. UIUC, Department of Psychology, A&P Brown Bag   April 2023
11. UIUC, Department of Psychology, A&P Brown Bag   April 2022
12. UIUC, Department of Psychology, A&P Brown Bag   October 2020
13. UIUC, Department of Psychology, Cognitive Brown Bag   March 2020
14. UIUC, Department of Psychology, A&P Brown Bag   February 2020
15. UIUC, Department of Psychology, A&P Brown Bag   April 2019
16. UIUC, Department of Psychology, A&P Brown Bag   April 2018

TEACHING EXPERIENCE

Primary Instructor
PSYC 100: Intro to Psychology   Fall 2022, Spring 2023

Teaching Assistant
PSYC 230: Perception and Sensory Processes   Summer 2019

ACADEMIC SERVICE & ACTIVITY

· Reviewer for Frontiers in Psychology, Psychonomic Bulletin & Review, Journal of Experimental Psychology: Human Perception and Performance, Cortex, Developmental Psychology, Journal of Vision, Behavior Research Methods, Scientific Reports, Universal Access in the Information Society, Cognitive Research: Principles and Implications.
· Member of the Vision Sciences Society (VSS).

COMMUNITY SERVICE & OUTREACH

· Participant in the 2025 Emerging Vision Scientist Program, Washington, D.C.
· Judge volunteer at 2025 Central Sound Science and Engineering Fair, Seattle.
· Volunteer for lab demonstration - Parkland College Psi Beta Psychology Club Lab Visit, 2023.

PROFESSIONAL EXPERIENCE

Esports Team, NVIDIA   February 2023 – present
Collaborator
· Designing and programming psychophysical experiments, collecting and analyzing data to test visual search abilities in action video game players vs. non-players.

Vision Lab, UIUC   August 2019 – July 2023
PhD Research Assistant
· Conducted research on peripheral vision in search behavior (NSF-funded), including experiment design, data analysis, and computational modeling.
· Managed lab tasks, including undergraduate training, ethical compliance, and study logistics.

Abbott Nutrition   October 2017-May 2019
Emerging Issue Tracking Intern & Public Health and Social Media Engagement Intern
· Developed PowerBI dashboards for competitor research tracking and food safety crisis alerts.
· Developed public health policy and social media strategy decks for Abbott Nutrition in 2018 and 2019.

China HIV/AIDS Information Network (CHAIN)   October 2016-January 2017
Volunteer & Translator
· Summarized and translated Key Population Investment Fund materials.
· Translated chapters from *The Remaking of Social Contracts* into Chinese.

ADDITIONAL RESEARCH EXPERIENCE IN ADVERTISING

Master Thesis – Cultural difference on placebo effects elicited by pharmaceutical ads
· Designed experiments, collected and analyzed data, and authored the paper investigating cultural differences in people's processing of pharmaceutical ad and reaction of placebo effect.

Do cohorts matter for social media use? A comparison of millennial and baby-boomer social media use
· Designed and conducted qualitative research to compare social media usage between millennials and baby-boomers.
· Course project ranked No. 1 by the client, Senior Vice President of Research at Starcom Media.