

# Curriculum Vitae

Yen-Ju Chen

PhD

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## RESEARCH INTEREST

Perception psychology, Time perception, Vision science, Spatial-temporal information processing,  
Perceptual organization, Motion perception, Psychophysics, Mathematical and computational modeling

## ACADEMIC RECORD

<b>Assitant Professor</b>	<b>Department of Psychology</b> Soochow University, Taipei, Taiwan	02/2026~ current
<b>PhD</b>	<b>Graduate School of Informatics</b> Department of Intelligence Science and Technology, Kyoto University, Kyoto, Japan	10/2022~ 09/2025
<b>Master of Science</b>	<b>Department of Psychology</b> National Cheng Kung University, Tainan, Taiwan	09/2020 ~ 06/2022
<b>Bachelor of Science</b>	<b>Department of Psychology</b> Soochow University, Taipei, Taiwan	09/2016 ~ 06/2020

## RESEARCH EXPERIENCE

<b>Visiting Scholar</b>	<b>School of Psychology</b> University of Nottingham, Nottingham, UK	08/2024 ~ 09/2024
<b>Part-time Research Assistant</b>	<b>Graduate School of Informatics</b> Department of Intelligence Science and Technology, Kyoto University, Kyoto, Japan	10/2022 ~ 09/2025
<b>Part-time Research Assistant</b>	<b>Department of Psychology</b> Soochow University, Taipei, Taiwan	09/2017 ~ 09/2018

## TEACHING EXPERIENCE

<b>Teaching Assistant</b>	<b>Department of Psychology</b>	
	National Cheng Kung University, Tainan, Taiwan	2021/02 ~ 2021/07
	Course: Sensation and Perception	
<b>Teaching Assistant</b>	<b>Department of Psychology</b>	
	Soochow University, Taipei, Taiwan	2019/02 ~ 2020/02
	Course: Statistics for psychology and education	

## PUBLICATION

### *Journal Article*

- Chen, Y.J.**, Sun, Z., & Nishida, S. (2024). Feature-invariant processing of spatial segregation based on temporal asynchrony. *Journal of Vision*, 24(5), 15. <https://doi.org/10.1167/jov.24.5.15>. (SCI, IF = 2.0, 2023; Ranking: 39/95=0.4 in Ophthalmology)
- Chen, Y.J.**, Sun, Z., & Nishida, S. (2025). Revealing temporal dynamics of the visuomotor system via continuous tracking of position and attribute. *Journal of Vision*, 25(8), 19. <https://doi.org/10.1167/jov.25.8.19> (SCI, IF = 2.0, 2023; Ranking: 39/95 = Top 41% in Ophthalmology)
- Chen, Y.J.**, Sun, Z., & Nishida, S. (in revision). Human visual grouping based on within- and cross-area temporal correlation. *PLOS computational biology*. <https://doi.org/10.1101/2025.03.27.645664>. (SCI, IF = 3.8, 2023; Ranking: 11/66=0.1 in Mathematical & Computational biology)
- Sun, Z., **Chen, Y.J.**, & Yang, Y.H., Nishida, S. (2025). Machine Learning Modeling for Multi-order Human Visual Motion Processing. *Nat Mach Intell*. <https://doi.org/10.1038/s42256-025-01068-w>. (SCI, IF = 23.9, 2024; Ranking: 1/170 = Top 0.5% in Computer science, interdisciplinary applications)

### *Conference Article*

- Li, Y., Sun, Z., Chen, Y.J., Nishida, S. (2025). [Poster] Building Reasonable Inference for Vision-Language Models in Blind Image Quality Assessment. 32<sup>nd</sup> International Conference on Neural Information Processing (ICONIP), Okinawa, Japan.
- Sun, Z., **Chen, Y.J.**, Yang, Y.H., Nishida, S. (2023) Modeling Human Visual Motion Processing with Trainable Motion Energy Sensing and a Self-attention Network. 2023 Conference on Neural Information Processing Systems, New Orleans, United States. <https://doi.org/10.48550/arXiv.2305.09156>
- Sun, Z., **Chen, Y.J.**, Yang, Y.H., Nishida, S. (2023) Comparative Analysis of Visual Motion Perception: Computer Vision Models versus Human Vision. Conference on Cognitive Computational Neuroscience, Oxford, UK. [https://2023.ccneuro.org/view\\_paper32e1.html?PaperNum=1080](https://2023.ccneuro.org/view_paper32e1.html?PaperNum=1080)
- Wang, S. T., **Chen, Y. J.**, Xu, Y. D., Ting, T. T., & Chan, T. C. (2019). Application of Weighted Alternating Least Squares on Constructing the Disease Networks in the Heterogeneous Process of Aging. In 2019 20th IEEE International Conference on Mobile Data Management (MDM) pp. 513-520. IEEE. <http://doi.org/10.1109/MDM.2019.00112>

### **Conference Abstract**

- Chen, Y. J.,** Sun, Z., & Nishida, S. Y. (2025). [Poster] Temporal dynamics of spatial segmentation based on temporal correlation measured by continuous tracking. *Journal of Vision*, 25(9), 1996-1996. <https://doi.org/10.1167/jov.25.9.1996>
- Chen, Y.J.,** Sun, Z., Nishida, S. Y. (2024). [poster]. Square versus triangular wave modulation in temporal asynchrony segmentation: an insight into underlying computation. Asia Pacific Conference on Vision, Singapore.
- Chen, Y.J.,** Sun, Z., Nishida, S. Y. (2024). [poster]. The Role of Cross-Area and Within-Area Temporal Correlations in Visual Segmentation. European Conference on Visual Perception 2024. Aberdeen, UK.
- Chen, Y.J.,** Sun, Z., Nishida, S. Y. (2024). [poster]. Temporal dynamics gap between position tracking and attribute tracking. *Journal of Vision*, 24(10), 465-465. <https://doi.org/10.1167/jov.24.10.465>
- Sun, Z., **Chen, Y.J.,** Yang, Y.H., Nishida, S. Y. (2024). [oral]. Acquisition of second-order motion perception by learning to recognize the motion of objects made by non-diffusive materials. *Journal of Vision*, 24(10), 4894-4894. <https://doi.org/10.1167/jov.23.9.4894>
- Chen, Y. J.,** & Nishida, S. Y. (2023). [poster]. Temporal limits of visual segmentation based on temporal asynchrony in luminance, color, motion direction, and their mixtures. *Journal of Vision*, 23(9), 4864-4864. <https://doi.org/10.1167/jov.23.9.4864>
- Sun, Z, **Chen, Y. J.,** Yang, Y. H., & Nishida, S. Y. (2023). [poster]. Modeling of Human Motion Perception Mechanism: A Simulation based on Deep Neural Network and Attention Transformer. *Journal of Vision*, 23(9), 4894-4894. <https://doi.org/10.1167/jov.23.9.4894>
- Chen, Y. J.,** & Huang, P. C. (2022). [poster]. Generalized form of common fate: evidence of structure dominance effect. *Journal of Vision*, 22(14), 3830-3830. <https://doi.org/10.1167/jov.22.14.3830>
- Kao, J. F., **Chen, Y. J.,** Huang, P. C., & Hsieh, S. (2022). [poster]. How age affects the preparation effects under cross-modal switching: Evidence from behavioral and ERP measures. In *PERCEPTION* (Vol. 51, pp. 157-157). 1 OLIVERS YARD, 55 CITY ROAD, LONDON EC1Y 1SP, ENGLAND: SAGE PUBLICATIONS LTD.
- Chen, Y. J.,** & Huang, P. C. (2021). [poster]. Temporal synchrony accompany with structure cue is more effective in the segmentation task. *Journal of Vision*, 21(9), 2137-2137. <https://doi.org/10.1167/jov.21.9.2137>
- Chen, Y.J.,** Huang, P.C. (2021). [oral]. Temporal synchrony or structure? A potential computational framework, 2021 Taiwan Psychology Affair, Taipei, Taiwan.
- Chen, Y.J.,** Wang, M.Y. (2019). [poster]. Influence of Arousal to time perception under positive IAPS picture: Controlling confound of approach motivation. 2019 Taiwan Psychology Affair, Kaohsiung, Taiwan.

### **Thesis**

- Chen, Y.J.** (2025) (Doctor Dissertation). Computing temporal correlation for perceptual organization in vision. Supervisor: Shin'ya Nishida.
- Chen, Y.J.** (2022) (Master Thesis) Temporal Structure does not trump synchrony in low temporal frequency: Implication and its potential interpretation. Supervisor: Pi-Chun Huang.

## GRANTS & AWARDS

### ***Kyoto University DoGS SPRING program***

- March 2024 to September 2025
- Constructing a human-like dynamic perceptual organization model: A visual transformer basic approach
- JPMJSP2110, Japan Science and Technology Agency, Japan
- JPY 3,840,000

### ***Kyoto University Science and Technology Innovation Creation Fellowship***

- October 2023 to March 2024
- Constructing a human-like dynamic perceptual organization model: A visual transformer basic approach
- JPMJFS2123, Japan Science and Technology Agency, Japan
- JPY 1,050,000

### ***College Student Research Scholarship***

- August 2019 to July 2020
- Time flies: the influence of arousal and approach motivation on time perception
- Ministry of Science and Technology, Taiwan
- NTD 48,000

### ***College Student Research Creativity Award***

- March 2020
- 108-2813-C-031-010-H, Ministry of Science and Technology, Taiwan
- NTD 20,000

## PROFESSIONAL AFFILIATIONS

Member, <i>Taiwan Psychology Association</i> , Taipei, Taiwan	2021-2022
Member, <i>Vision Science Society</i> , Florida, US	2021-2025