Ching-Chih Amber Tsao

Research Assistant | Cornell University, NYC

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RESEARCH STATEMENT

My research interests focus on Human-AI Decision Making, at the intersection of Human-Robot Collaboration, Human-Centered AI, and Brain Dynamics. My previous research projects utilized EEG analysis to assess users' trust behavior and decision-making strategies during human-robot collaboration.

EDUCATION

Aug. 2023 –	Dual M.S. in Applied Information Science and Information Systems
<i>May 2025</i>	Cornell University, USA & Technion – Israel Institute of Technology, Israel
	Connective Media Concentration, Merit-based Scholarship Recipient
	Advisor: Prof. Wendy Ju
Jun. 2023	B.S. in Management Information Systems

B.S. in Management Information Systems
National Chengchi University, Taiwan

Advisor: Prof. Shih-Yi Chien

EXPERIENCES

Jan. 2024 –	Future Automation Research Lab, Cornell University	
Present	Research Assistant, Advisor: Prof. Wendy Ju	
	- Researching on social discomfort and awkward silence in share-rides	
Dec. 2020 –	Human-Automation Interaction Lab, National Chengchi University, Taiwan	
Aug. 2023	Research Assistant, Advisor: Prof. Shih-Yi Chien	

EEG Team Lead (Apr. 2021 - Aug. 2023)

- Researched on the impact of **explainable AI** on building trust in **human-generative-AI collaboration**
- Researched on the **decision-making** process in **human-robot collaboration** [HICSS-56]
- Researched on **neuromarketing** strategies in human-robot interaction [HRI'23]
- Researched on **topic modeling** the shifting research trends in the HRI fields [HRI'22]
- Conducted workshop on EEG data analysis

Jul. 2022 – Innovation R&D Department, Sinyi Realty Inc., Taiwan

Aug. 2022 Data Analyst Summer Intern

- Developed the Address Plaque Recognition API: an **image recognition API** for collecting addresses, reduced time spent on typing addresses by 80%

PUBLICATIONS

Peer Reviewed Conference Papers

[C4] Human-Robot Interaction in E-Commerce: The Role of Personality Traits and Chatbot Mechanisms – A Neuromarketing Research

Yu-Wen Chang, Shih-Yi Chien, Yao-Cheng Chan, <u>Ching-Chih Tsao</u> (Mar. 2024) Comp. ACM/IEEE International Conference on Human-Robot Interaction (HRI '24). Boulder, CO.

- The Influence of a Robot Recommender System on Impulse Buying Tendency [C3] Ching-Chih Tsao, Cheng-Yi Tang, Yu-Wen Chang, Yin-Hsuan Sung, Shih-Yi Chien, and Szu-Yin Lin (Mar. 2023) Comp. ACM/IEEE International Conference on Human-Robot Interaction (HRI '23). 672-676. Stockholm.
- [C2] Assessing the Decision-Making Process in Human-Robot Collaboration Using a Lego-like **EEG Headset** Ching-Chih Tsao, Hao-Hsiang Chuang, Tsu-Han Tsao, Cheng-Yi Tang, Yu-Wen Chang, Chih-Ling Chu, Chi-Chien Sung, Cheng-Lin Hsieh, Yuan-Pin Lin, and Shih-Yi Chien (Jan. 2023) Proc. Hawaii International Conference on System Sciences (HICSS-56). 1529-1538. Maui, HI.
- A Machine Learning Approach to Model HRI Research Trends in 2010~2021 [C1] Chan Hsu, Ching-Chih Tsao, Yu-Liang Weng, Cheng-Yi Tang, Yu-Wen Chang, Yihuang Kang, and Shih-Yi Chien (Mar. 2022) Proc. ACM/IEEE International Conference on Human-Robot Interaction (HRI '22). 812-815. Online.

SERVICES

Teaching Assistant	 Break through Tech - AI Studio, Cornell University Mentored 20+ undergraduate student on their ML projects Meet twice a month with 4 groups of students to provide suggestions on improving models' performance and keep track the projects' progress 	2023 k on			
	Introduction to Computer Science, National Chengchi University • Introduced git and front-end web development in class	2022			
Workshop Speaker	Introduction to EEG Analysis, National Chengchi University	2023			
Reviewer	Alt. CHI 2023, HRI 2023				
Student Ambassador	Cornell Tech Student Ambassador	2023			
	UNESCO Hong Kong SDGs Ambassador (Golden Merits)	2018			
HONORS AND AWARDS					
Conference Travel Grant – HRI'24, Boulder, CO, USA					
Merit-based Scholarship, Cornell University					
Research Scholarship, NSTC of Taiwan 2021					
Conference Travel Grant – HICSS-56, Maui, HI, USA					
Academic Excellence Award, National Chengchi University (Ranked #1/80)					

SKILLS

Programming Languages	Pytnon, MATLAB, JavaScript, Java, R, SWIft
Tools	Emotiv, EEGLAB, TensorFlow, PyTorch, Selenium, Git, Figma, jQuery
Languages	English, Mandarin

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