

# Cheng-Fu Yang

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## EDUCATION & EXPERIENCE

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<b>University of California, Los Angeles</b> Ph.D. in Computer Science; Advisor: <i>Kai-Wei Chang</i>	Sep. 2022 – Present
<b>University of California, Los Angeles</b> M.S. in Computer Science; Advisor: <i>Kai-Wei Chang</i>	Sep. 2022 – Mar. 2025
<b>National Taiwan University</b> B.S. in Electrical Engineering	Sep. 2016 – Jun. 2020
<b>Research Scientist Intern</b> Topic: Large scale Omni-modal Pre-training Meta, FAIR; Mentor: <i>Bernie Huang</i>	Jun. 2025 – Present
<b>Applied Scientist Intern</b> Topic: Constituting Policies for Language Agents Amazon AGI; Mentor: <i>Weitong Ruan</i>	Jun. 2024 – Sep. 2024
<b>Applied Scientist Intern</b> Topic: Diffusion Policies for Embodied Agents Amazon; Mentor: <i>Feng Gao</i>	Jun. 2023 – Sep. 2023
<b>Research Intern</b> Topic: Representation Learning for Instruction Following Agents Microsoft Research; Mentor: <i>Yen-Chun Chen</i>	Apr. 2022 – Jun. 2023
<b>Research Assistant</b> National Taiwan University; Advisor: <i>Yu-Chiang Frank Wang</i>	Sep. 2020 – Jun. 2022
<b>Collaborative Research Project Participant</b> Carnegie Mellon University; Mentor: <i>Yao-Hung Hubert Tsai</i> ; Advisor: <i>Ruslan Salakhutdinov, Louis-Philippe Morency</i>	Dec. 2020 – Sep. 2021

## PUBLICATIONS

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<b>Cheng-Fu Yang</b> , Christos Christodoulopoulos, Thanh Tran, Weitong Ruan, Rahul Gupta and Kai-Wei Chang. “Customize Multi-modal RAI Guardrails with Precedent-based predictions”	COLM 2025
<b>Cheng-Fu Yang</b> , Da Yin, Wenbo Hu, Heng Ji, Nanyun Peng, Bolei Zhou and Kai-Wei Chang. “Verbalize Representation Learning For Interpretable Few-shot Generalization”	ICCV 2025
<b>Cheng-Fu Yang</b> , Haoyang Xu, Te-Lin Wu, Xiaofeng Gao, Kai-Wei Chang, and Feng Gao. “Planning as Inpainting: A Generative Framework for Realistic Embodied Path Planning”	NeurIPS OWA Workshop, 2024
Silin Meng, Yiwei Wang, <b>Cheng-Fu Yang</b> , Nanyun Peng and Kai-Wei Chang. “LLM-A*: Large Language Model Enhanced Incremental Heuristic Search on Path Planning”	EMNLP, 2024
Zi-Yi Dou, <b>Cheng-Fu Yang</b> , Xueqing Wu, Kai-Wei Chang and Nanyun Peng. “Reflection-Reinforced Self-Training for Language Agents”	EMNLP, 2024
<b>Cheng-Fu Yang</b> , Yen-Chun Chen, Jianwei Yang, Xiyang Dai, Lu Yuan, Yu-Chiang Frank Wang, and Kai-Wei Chang. “LACMA: Language-Aligning Contrastive Learning with Meta-Actions for Embodied Instruction Following”	EMNLP 2023
Wan-Cyuan Fan, <b>Cheng-Fu Yang</b> , Chiao-An Yang and Yu-Chiang Frank Wang. “Target-free Text-guided Image Manipulation”	AAAI 2023
<b>Cheng-Fu Yang</b> , Yao-Hung Hubert Tsai, Wan-Cyuan Fan, Ruslan Salakhutdinov, Louis-Philippe Morency, and Yu-Chiang Frank Wang. “Paraphrasing is all you need for novel object captioning”	NeurIPS 2022

Chih-Chun Yang, <b>Cheng-Fu Yang</b> , Wan-Cyuan Fan, and Yu-Chiang Frank Wang. “Cross-Modal Mutual Learning for Audio-Visual Speech Recognition and Manipulation”	AAAI 2022
Chiao-An Yang, Cheng-Yo Tan, Wan-Cyuan Fan, <b>Cheng-Fu Yang</b> , Meng-Lin Wu, and Yu-Chiang Frank Wang. “Scene graph expansion for semantics-guided image outpainting”	CVPR 2022
<b>Cheng-Fu Yang*</b> , Wan-Cyuan Fan*, Fu-En Yang, and Yu-Chiang Frank Wang. “Layouttransformer: Scene layout generation with conceptual and spatial diversity”	CVPR 2021

## MANUSCRIPT

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Eric Hanchen Jiang, Haozheng Luo, Shengyuan Pang, Xiaomin Li, Zhenting Qi, Hengli Li, <b>Cheng-Fu Yang</b> , Zongyu Lin, Xinfeng Li, Hao Xu, Kai-Wei Chang, Ying Nian Wu. “Learning to Rank Chain-of-Thought: An Energy-Based Approach with Outcome Supervision”	Under Submission
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## RESEARCH INTEREST

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Representation Learning for agent planning and interaction.  
Vision and Language representation learning for generation and reasoning.

## AWARDS AND HONORS

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First Prize, Institute for Information Industry Enterprise Award at Meichu Hackathon	Sep. 2019
Dean’s List, National Taiwan University	Sep. 2019
Dean’s List, National Taiwan University	Jan. 2017

## TEACHING EXPERIENCES & PROFESSION SERVICES

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<b>Teaching Assistant, UCLA</b> Advanced Natural Language Processing; Instructor: Violet Peng	Fall 2024
<b>Teaching Assistant, UCLA</b> Introduction to Computer Science; Instructor: David Smallberg	Fall 2023
<b>Teaching Assistant, National Taiwan University</b> Deep Learning for Computer Vision; Instructor: Yu-Chiang Frank Wang	Fall 2021
<b>Teaching Assistant, National Taiwan University</b> Machine Learning; Instructor: Hung-Yi Lee	Fall 2019 & Spring 2020
<b>Conference Reviewer</b> CVPR, ECCV, ICCV, NeurIPS, ACL, EMNLP	

## COURSEWORK

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Probabilistic Machine Learning	Winter 2023
Deep Learning	Spring 2023
Natural Language Processing	Spring 2023
Big Data Analytics	Fall 2023
Artificial Intelligence	Winter 2024
Foundation Model for Autonomous Agent	Spring 2024