

Yujie Lu

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EDUCATION

University of California, Santa Barbara Ph.D. in Computer Science, Advisor: William Wang	Santa Barbara, US Sep. 2021 – present
Robotics Institute, Carnegie Mellon University Visiting Research Intern, Advisor: David Held	Pittsburgh, US Jul. 2019 – Aug. 2019
Zhejiang University B.Eng. in Computer Science and Technology	Hangzhou, China Sep. 2015 – Jun. 2019

INDUSTRY EXPERIENCE

Meta (FAIR Embodied AI) <i>Research Intern, Advisors: Tushar Nagarajan, Yale Song, Lorenzo Torresani</i> Project: Working on post-training of Video Large Language Model.	New York, NY, US Jun. 2024 – present
Amazon AWS AI <i>Research Intern, Advisors: Zhaowei Cai, Hao Yang, Stefano Soatto</i> Project: Working on post-training of Multimodal Large Language Model.	Pasadena, CA, US Jun. 2023 – Sep. 2023
Microsoft Research <i>Research Intern, Advisor: Oriana Riva</i> Project: Working on visual grounding on user interfaces.	Redmond, WA, US Jun. 2022 – Sep. 2022
Tencent <i>Full-time Applied Researcher</i> Project: Working on dialogue system and advertisement ranking system.	Shenzhen, China Aug. 2019 – Sep. 2021
NetEase Internet Technology Company <i>Mobile Game Developer Intern</i>	Hangzhou, China Oct. 2017 – May. 2018

SELECTED PUBLICATIONS & PREPRINTS (Google Scholar Profile)

- Yujie Lu**, Dongfu Jiang, Wenhui Chen, William Wang, Yuchen Lin, “WildVision: Evaluating Vision-Language Models in the Wild with Human Preferences” (*NeurIPS 2024*) [paper] [demo]
- Yujie Lu**, Xiujun Li, Tsu-Jui Fu, Miguel Eckstein, William Wang, “From Text to Pixel: Advancing Long-Context Understanding in MLLMs” (*ICML LCFM Workshop 2024*) [paper]
- Yujie Lu**, Pan Lu, Zhiyu Chen, Wanrong Zhu, Xin Eric Wang, William Wang, “Multimodal Procedural Planning via Dual Text-Image Prompting” (*EMNLP 2024*) [paper] [code]
- Max Ku, Tianle Li, Kai Zhang, **Yujie Lu**, Xingyu Fu, Wenwen Zhuang, Wenhui Chen, “Imagenhub: Standardizing the evaluation of conditional image generation models” (*ICLR 2024*) [paper] [code]
- Yujie Lu**, Xianjun Yang, Xiujun Li, Xin Eric Wang, William Wang, “LLMScore: Unveiling the Power of Large Language Models in Text-to-Image Synthesis Evaluation.” *Conference on Neural Information Processing Systems (NeurIPS 2023)* [paper] [code]
- Yujie Lu**, Weixi Feng, Wanrong Zhu, Wenda Xu, Xin Eric Wang, Miguel Eckstein, William Wang, “Neuro-Symbolic Procedural Planning with Commonsense Prompting.” *International Conference on Learning Representations (ICLR 2023) Spotlight* [paper] [code]
- Yujie Lu**, Wanrong Zhu, Xin Wang, Miguel Eckstein, William Wang, “Imagination-Augmented Natural Language Understanding.” *North American Chapter of the Association for Computational Linguistics (NAACL 2022)* [paper] [code]

Vision and Language Models

1. **Yujie Lu**, Dongfu Jiang, Wenhui Chen, William Wang, Yuchen Lin, “WildVision: Evaluating Vision-Language Models in the Wild with Human Preferences” (*NeurIPS 2024*) [paper] [demo]
2. Xuehai He, Weixi Feng, Kaizhi Zheng, **Yujie Lu**, Wanrong Zhu, Jiachen Li, Yue Fan, Jianfeng Wang, Linjie Li, Zhengyuan Yang, Kevin Lin, William Yang Wang, Lijuan Wang, Xin Eric Wang, “MMWorld: Towards Multi-discipline Multi-faceted World Model Evaluation in Videos” (*Under review*) [paper]
3. **Yujie Lu**, Xiujun Li, Tsu-Jui Fu, Miguel Eckstein, William Wang, “From Text to Pixel: Advancing Long-Context Understanding in MLLMs” (*ICML LCFM Workshop 2024*) [paper]
4. **Yujie Lu***, Xiujun Li*, William Wang, Yejin Choi, “VIM: Probing Multimodal Large Language Models for Visual Embedded Instruction Following” (*NeurIPS Workshop*) [paper] [code] [website]
5. Yijun Qian, **Yujie Lu**, Alexander G. Hauptmann, Oriana Riva, “Visual Grounding for User Interfaces” (*NAACL 2024 Industry Track*)
6. Xinlu Zhang*, **Yujie Lu***, Weizhi Wang*, An Yan, Jun Yan, Lianke Qin, Heng Wang, Xifeng Yan, William Yang Wang, Linda Ruth Petzold, “Gpt-4v (ision) as a generalist evaluator for vision-language tasks” [paper]
7. Edwin Zhang, **Yujie Lu**, William Wang, Amy Zhang, “LAD: Language Augmented Diffusion for Reinforcement Learning” (*ICLR 2024*) [paper]
8. Wanrong Zhu, An Yan, **Yujie Lu**, Wenda Xu, Xin Eric Wang, William Wang, “Visualize Before You Write: Imagination-Guided Open-Ended Text Generation.” *European Chapter of the Association for Computational Linguistics (EACL 2023)* [paper] [code]
9. Weixi Feng, Tsu-Jui Fu, **Yujie Lu**, William Wang, “Towards Underspecified Vision-and-Language Navigation.” *The Conference on Empirical Methods in Natural Language Processing (EMNLP 2022)* [paper] [code]
10. **Yujie Lu**, Wanrong Zhu, Xin Wang, Miguel Eckstein, William Wang, “Imagination-Augmented Natural Language Understanding.” *North American Chapter of the Association for Computational Linguistics (NAACL 2022)* [paper] [code]

LLMs and Multimodal Agents

1. **Yujie Lu**, Pan Lu, Zhiyu Chen, Wanrong Zhu, Xin Eric Wang, William Wang, “Multimodal Procedural Planning via Dual Text-Image Prompting” (*EMNLP 2024*) [paper] [code]
2. Zhiyu Chen, **Yujie Lu**, William Wang, “Empowering Psychotherapy with Large Language Model: Cognitive Distortion Detection through Diagnosis of Thought Prompting” *Conference on Empirical Methods in Natural Language Processing (EMNLP 2023)* [paper]
3. Wanrong Zhu, Xinyi Wang, **Yujie Lu**, Tsu-Jui Fu, Xin Eric Wang, Miguel Eckstein, William Wang, “Collaborative Generative AI: Integrating GPT-k for Efficient Editing in Text-to-Image Generation” (*EMNLP 2023*) [paper]
4. Vaishnavi Himakunthala, Andy Ouyang, Daniel Philip Rose, Ryan He, Alex Mei, **Yujie Lu**, Chinmay Sonar, Michael Saxon, William Wang, “Let’s Think Frame by Frame with VIP: A Video Infilling and Prediction Dataset for Evaluating Video Chain-of-Thought” *Conference on Empirical Methods in Natural Language Processing (EMNLP 2023)* [paper]
5. **Yujie Lu***, Jianren Wang*, Hang Zhao. “CLOUD: Contrastive Learning of Unsupervised Dynamics” *Proceedings of the Conference on Robot Learning (CoRL 2020)* [paper] [code]

Causal Learning

1. **Yujie Lu**, Weixi Feng, Wanrong Zhu, Wenda Xu, Xin Eric Wang, Miguel Eckstein, William Wang, “Neuro-Symbolic Procedural Planning with Commonsense Prompting.” *International Conference on Learning Representations (ICLR 2023) Spotlight* [paper] [code]

2. Matthew S. Ho, Aditya Sharma, Justin Chang, Michael S. Saxon, Sharon Levy, **Yujie Lu**, William Wang, “WikiWhy: Answering and Explaining Cause-and-Effect Questions.” *International Conference on Learning Representations (ICLR 2023)* [paper] [code]

Text-to-Image Generation

1. Michael Saxon, Fatima Jahara, Mahsa Khoshnoodi, **Yujie Lu**, Aditya Sharma, William Yang Wang, “Who Evaluates the Evaluations? Objectively Scoring Text-to-Image Prompt Coherence Metrics with T2IScoreScore” (*NeurIPS 2024*) [paper] [project]
2. Xingyu Fu*, Muyu He*, **Yujie Lu***, William Wang, Dan Roth, “Commonsense-T2I Challenge: Can Text-to-Image Generation Models Understand Commonsense?” (*COLM 2024*) [paper]
3. Max Ku, Tianle Li, Kai Zhang, **Yujie Lu**, Xingyu Fu, Wenwen Zhuang, Wenhui Chen, “Imagenhub: Standardizing the evaluation of conditional image generation models” (*ICLR 2024*) [paper] [code]
4. **Yujie Lu**, Xianjun Yang, Xiujuan Li, Xin Eric Wang, William Wang, “LLMScore: Unveiling the Power of Large Language Models in Text-to-Image Synthesis Evaluation.” *Conference on Neural Information Processing Systems (NeurIPS 2023)* [paper] [code]

Interpretability

1. An Yan, Yu Wang, Yiwu Zhong, Chengyu Dong, Zexue He, **Yujie Lu**, William Wang, Jingbo Shang, Julian McAuley, “Learning Concise and Descriptive Attributes for Visual Recognition.” *International Conference on Computer Vision (ICCV 2023)* [paper]
2. Wenda Xu, Yi-Lin Tuan, **Yujie Lu**, Michael Saxon, Lei Li, William Wang, “Not All Errors are Equal: Learning Text Generation Metrics using Stratified Error Synthesis.” *The Conference on Empirical Methods in Natural Language Processing (EMNLP 2022)* [paper]

Computational Social Science

1. Hancheng Cao, **Yujie Lu**, Yuting Deng, Daniel McFarland, Michael S. Bernstein, “Does HCI Research Break Through To Industry? A Large-scale Analysis of Patent Citations to HCI Research.” *ACM CHI Conference on Human Factors in Computing Systems (CHI 2023)* [paper]

Recommendation System

1. **Yujie Lu***, Ping Nie*, Ming Zhao, Ruobing Xie, William Wang, “MIC: Model-agnostic Integrated Cross-channel Recommenders.” *The Conference of Information and Knowledge Management (CIKM 2022)* [paper]
2. Shengyu Zhang, Lingxiao Yang, Yao Dong, **Yujie Lu**, Zhou Zhao, Fuli Feng, “Re4: Learning to Re-contrast, Re-attend, Re-construct for Multi-interest Recommendation.” *Proceedings of The Web Conference (WWW 2022)* [paper] [code]
3. **Yujie Lu**, Shengyu Zhang, Yingxuan Huang, Luyao Wang, Xinyao Yu, Zhou Zhao, Fei Wu. “Future-Aware Diverse Trends Framework for Sequential Recommendation” *Proceedings of The Web Conference (WWW 2021)* [paper] [code]

ACADEMIC SERVICES & SELECTED HONORS

Best Paper Award, CHI 2023.

Second Place, Amazon Alexa TaskBot Challenge 2023.

Robert Noyce Fellow.

Organizer: SoCalNLP 2022.

Conference Reviewer: ACL, EMNLP, EACL, ECCV, ICCV, CVPR, NeurIPS, AACL, ICML, AISTATS.

Teaching Assistant: Winter 2023 CS165B Machine Learning.