Yujie Lu

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EDUCATION

University of California, Santa Barbara — Santa Barbara, US
Ph.D. in Computer Science, Advisor: William Wang — Sep. 2021 – Feb. 2025
Zhejiang University — Hangzhou, China
B.Eng. in Computer Science and Technology — Sep. 2015 – Jun. 2019

INDUSTRY EXPERIENCE

Meta Superintelligence Labs — Bellevue, WA, US
Research Scientist — Feb. 2025 – present
Multimodal post-training (SFT and RL) for Llama reasoning. Llama video understanding. Emu image generation and editing. MovieGen video generation and editing.

Meta (FAIR Embodied AI) — New York, NY, US
Research Intern, Advisors: Tushar Nagarajan, Yale Song, Lorenzo Torresani — Jun. 2024 – Jan. 2025
Project: Working on post-training of Video Large Language Model.

Amazon AWS AI — Pasadena, CA, US
Research Intern, Advisors: Zhaowei Cai, Hao Yang, Stefano Soatto — Jun. 2023 – Sep. 2023
Project: Working on post-training of Multimodal Large Language Model.

Microsoft Research — Redmond, WA, US
Research Intern, Advisor: Oriana Riva — Jun. 2022 – Sep. 2022
Project: Working on visual grounding on user interfaces.

SELECTED PUBLICATIONS & PREPRINTS **(Google Scholar Profile)**

1. **Yujie Lu**, Yale Song, William Yang Wang, Lorenzo Torresani, Tushar Nagarajan, "VITED: Video Temporal Evidence Distillation" *(CVPR 2025)* [paper]
2. **Yujie Lu**, Dongfu Jiang, Wenhu Chen, William Wang, Yuchen Lin, "WildVision: Evaluating Vision-Language Models in the Wild with Human Preferences" *(NeurIPS 2024)* [paper] [demo]
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**, Pan Lu, Zhiyu Chen, Wanrong Zhu, Xin Eric Wang, William Wang, "Multimodal Procedural Planning via Dual Text-Image Prompting" *(EMNLP 2024)* [paper] [code]
5. Max Ku, Tianle Li, Kai Zhang, **Yujie Lu**, Xingyu Fu, Wenwen Zhuang, Wenhu Chen, "Imagenhub: Standardizing the evaluation of conditional image generation models" *(ICLR 2024)* [paper] [code]
6. **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]
7. **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]
8. **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]

ALL PUBLICATIONS & PREPRINTS (Google Scholar Profile)

Vision and Language Models

1. **Yujie Lu**, Dongfu Jiang, Wenhu 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, Wenhu Chen, "Imagenhub: Standardizing the evaluation of conditional image generation models" *(ICLR 2024)* [paper] [code]

4. **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]

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]

Compuational 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, AAAI, ICML, AISTATS.
Teaching Assistant: Winter 2023 CS165B Machine Learning.