

YUE YANG

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EDUCATION

Ph.D. in Computer and Information Science Aug 2020 - May 2025
University of Pennsylvania
Advisor: Chris Callison-Burch, Mark Yatskar

M.S. in Robotics Aug 2018 - May 2020
University of Pennsylvania

B.E. in Mechanical Engineering Aug 2014 - May 2018
Zhejiang University

RESEARCH INTERESTS

My research lies at the intersection area of Natural Language Processing and Computer Vision. I aim to apply knowledge priors of large language models (LLMs) to guide the visual intelligence, including **interpretable** perception [1][4] and **generalizable** generation systems [2][3].

SELECTED WORKS

- [1] **Yue Yang**, Mona Gandhi, Yufei Wang, Yifan Wu, Michael S. Yao, James C. Gee, Chris Callison-Burch, Mark Yatskar. [A Textbook Remedy for Domain Shifts: Knowledge Priors for Medical Image Analysis](#). (**NeurIPS** 2024, **spotlight**)
- [2] Matt Deitke*, Christopher Clark*, Sangho Lee, Rohun Tripathi, **Yue Yang**, Jae Sung Park, Mohammadreza Salehi, et al. (51 authors in total) [Molmo and PixMo: Open Weights and Open Data for State-of-the-Art Multimodal Models](#). (**Molmo** Technical Report, 2024)
- [3] **Yue Yang***, Fan-Yun Sun*, Luca Weihs*, Eli Vanderbilt, Alvaro Herrasti, Winson Han, Jiajun Wu, Nick Haber, Ranjay Krishna, Lingjie Liu, Chris Callison-Burch, Mark Yatskar, Aniruddha Kembhavi, Christopher Clark. [Holodeck: Language Guided Generation of 3D Embodied AI Environments](#). (**CVPR** 2024)
- [4] **Yue Yang**, Artemis Panagopoulou, Shenghao Zhou, Daniel Jin, Chris Callison-Burch, Mark Yatskar. [Language in a Bottle: Language Model Guided Concept Bottlenecks for Interpretable Image Classification](#). (**CVPR** 2023)

PUBLICATIONS

1. Long Le, Jason Xie, William Liang, Hung-Ju Wang, **Yue Yang**, Yecheng Jason Ma, Kyle Vedder, Arjun Krishna, Dinesh Jayaraman, Eric Eaton. [Articulate-Anything: Automatic Modeling of Articulated Objects via a Vision-Language Foundation Model](#). (**ICLR** 2025)
2. Yifan Wu, Yang Liu, **Yue Yang**, Michael S. Yao, Wenli Yang, Xuehui Shi, Lihong Yang, Dongjun Li, Yueming Liu, James C. Gee, Xuan Yang, Wen-bin Wei, Shi Gu. [A Concept-based Interpretable Model for the Diagnosis of Choroid Neoplasias using Multimodal Data](#). (**Nature Communications**, 2025)
3. Runsheng Huang, Liam Dugan, **Yue Yang**, Chris Callison-Burch. [MiRAGeNews: Multimodal Realistic AI-Generated News Detection](#). (Findings of **EMNLP** 2024)
4. Yiming Huang, Weilin Wan, **Yue Yang**, Chris Callison-Burch, Mark Yatskar, Lingjie Liu. [CoMo: Controllable Motion Generation through Language Guided Pose Code Editing](#). (**ECCV** 2024)

5. Tuhin Chakrabarty, Arkady Saakyan, Olivia Winn, Artemis Panagopoulou, **Yue Yang**, Marianna Apidianaki, Smaranda Muresan. [Large Language Models and Diffusion Models Co-Create Visual Metaphors](#). (Findings of **ACL** 2023)
6. Li Zhang, Hainiu Xu, **Yue Yang**, Shuyan Zhou, Weiqiu You, Manni Arora, Chris Callison-Burch. [Causal Reasoning About Entities and Events in Procedural Texts](#). (Findings of **EACL** 2023)
7. **Yue Yang**, Wenlin Yao, Hongming Zhang, Xiaoyang Wang, Dong Yu, Jianshu Chen. [Z-LaVI: Zero-Shot Language Solver Fueled by Visual Imagination](#). (**EMNLP** 2022)
8. **Yue Yang***, Artemis Panagopoulou*, Marianna Apidianaki, Mark Yatskar and Chris Callison-Burch. [Visualizing the Obvious: A Concreteness-based Ensemble Model for Noun Property Prediction](#). (Findings of **EMNLP** 2022)
9. Shuyan Zhou*, Li Zhang*, **Yue Yang**, Qing Lyu, Graham Neubig, Chris Callison-Burch. [Show Me More Details: Discovering Event Hierarchies from WikiHow](#). (**ACL** 2022)
10. **Yue Yang**, Artemis Panagopoulou, Qing Lyu, Li Zhang, Mark Yatskar, Chris Callison-Burch. [Visual Goal-Step Inference using wikiHow](#). (**EMNLP** 2021)

PREPRINTS & WORKSHOP PAPERS

- [I] **Yue Yang**, Joongwon Kim, Artemis Panagopoulou, Mark Yatskar, Chris Callison-Burch. [Induce, Edit, Retrieve: Language Grounded Multimodal Schema for Instructional Video Retrieval](#). (O-DRUM Workshop at CVPR 2022)

PROFESSIONAL EXPERIENCE

PRIOR @ Allen Institute for AI, Seattle, WA Summer 2023, 2024
 Research Intern (Host: Christopher Clark)
Ai2 Outstanding Intern of the Year Award (2023)

Tencent AI Lab, Bellevue, WA Summer 2022
 Research Scientist Intern (Host: Wenlin Yao)

TEACHING

Teaching Assistant

CIS-521 Artificial Intelligence Fall 2019 - Fall 2022
 CIS-530 Computational Linguistics Spring 2021
Outstanding Teaching Award, University of Pennsylvania (2020)

ACADEMIC SERVICES

Paper Review

Computer Vision: CVPR, ECCV, SIGGRAPH Asia.
 Natural Language Processing: ACL, EMNLP, NAACL, EACL, COLM.
 Machine Learning: NeurIPS, ICLR, ICML, TMLR.

SKILLS

Programming languages: Python, Matlab, C, Bash, Coq.
 Machine learning libraries: PyTorch, TensorFlow, Keras, Scikit-learn.