

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 diverse domains, enhancing the **interpretability** [3], **robustness** [1], and **creativity** [1] of AI systems.

PUBLICATIONS

- [1] **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)
- [2] 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)
- [3] **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)
- [4] Li Zhang, Hainiu Xu, **Yue Yang**, Shuyan Zhou, Weiqiu You, Manmi Arora, Chris Callison-Burch. [Causal Reasoning About Entities and Events in Procedural Texts](#). (Findings of EACL 2023)
- [5] **Yue Yang**, Wenlin Yao, Hongming Zhang, Xiaoyang Wang, Dong Yu, Jianshu Chen. [Z-LaVI: Zero-Shot Language Solver Fueled by Visual Imagination](#). (EMNLP 2022)
- [6] **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)
- [7] **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)
- [8] Shuyan Zhou*, Li Zhang*, **Yue Yang**, Qing Lyu, Graham Neubig, Chris Callison-Burch. [Show Me More Details: Discovering Event Hierarchies from WikiHow](#). (ACL 2022)
- [9] **Yue Yang**, Artemis Panagopoulou, Qing Lyu, Li Zhang, Mark Yatskar, Chris Callison-Burch. [Visual Goal-Step Inference using wikiHow](#). (EMNLP 2021)

PREPRINTS

- [I] **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](#). (In submission, 2024)
- [II] Yiming Huang, Weilin Wan, **Yue Yang**, Chris Callison-Burch, Mark Yatskar, Lingjie Liu. [CoMo: Controllable Motion Generation through Language Guided Pose Code Editing](#). (In submission, 2024)
- [III] 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](#). (In submission, 2024)
- [IV] Josh Magnus Ludan, Qing Lyu, **Yue Yang**, Liam Dugan, Mark Yatskar, Chris Callison-Burch. [Interpretable-by-Design Text Classification with Iteratively Generated Concept Bottleneck](#). (In submission, 2023)

PROFESSIONAL EXPERIENCE

PRIOR @ Allen Institute for AI , Seattle, WA Research Intern (Host: Christopher Clark)	May 2024 - Aug 2024
PRIOR @ Allen Institute for AI , Seattle, WA Research Intern (Host: Christopher Clark)	May 2023 - Aug 2023
AI2 Outstanding Intern of the Year Award (2023)	
Tencent AI Lab , Bellevue, WA Research Scientist Intern (Host: Wenlin Yao)	May 2022 - Aug 2022

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, TMLR.

SKILLS

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