Shoubin Yu

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Linkedin Google Scholar

Research Interests

My research goal is to build systems that can understand complex visual scenes and make optimal decisions effectively, efficiently, and interpretably.

Major Interests: Video-Language, Video Understanding, Symbolic Reasoning.
Other Interests: Detection, Grounding, 2D/3D Generation, Self-Supervised Learning, Multimodal Representation Learning.

Education

Present – Aug. 2022 | **The University of North Carolina, Chapel Hill, USA**
Ph.D. in Computer Science | Advisor: Mohit Bansal
Concentration: Computer Vision, Multimodal Learning

Jun. 2018 – Aug. 2018 | **University of Washington, Seattle, USA**
Exchange Program, Major: Electronic Engineering

Jun. 2022 – Sept. 2017 | **Shanghai Jiao Tong University, Shanghai, China**
Bachelor of Engineering, Major: Cyber Security

Experience

Present – Aug. 2022 | **UNC-NLP Research Group, NC, United States**
Research Assistant | Advisor(s): Mohit Bansal
› Working on video-language.

May. 2023 – Aug. 2023 | **Amazon Alexa AI, CA, United States**
Research Scientist Intern (Natural Understanding) | Advisor(s): Jocab Fang, Robinson Piramuthu, Gunnar Sigurdsson, Skyler Zheng
› Working on text-to-video generation.

Apr. 2022 – Jan. 2021 | **SenseTime, Shanghai, China**
Research Intern (CV) | Advisor(s): Wei Wu, Haisheng Su
› Working on video anomaly detection.
› Working on video representation learning.

Dec. 2021 – Jan. 2021 | **MIT-IBM Watson AI Lab, Cambridge, USA**
Research Assistant (Remote) | Advisor(s): Bo Wu
› Working on situated reasoning in real-world videos.

Nov. 2021 – Jan. 2021 | **Shanghai Jiao Tong University, Shanghai, China**
Research Assistant | Advisor(s): Haoshu Fang, Cewu Lu
› Working on skeletal-based action detection.

Sept. 2020 – Oct. 2019 | **Shanghai Jiao Tong University, Shanghai, China**
Research Assistant | Advisor(s): Tanfeng Sun
› Working on GAN-based anomaly detection.

Publications

2023 Shoubin Yu, Jaemin Cho, Prateek Yadav, Mohit Bansal *"Self-Chained Image-Language Model for Video Localization and Question Answering"* In Thirty-seventh Conference on Neural Information Processing Systems (NeurIPS 2023)[PDF]

2023 Shoubin Yu, Zhongyin Zhao, Haoshu Fang, Andong Deng, Haisheng Su, Dongliang Wang, Cewu Lu, Wei Wu *"Regularity Learning via Explicit Distribution Modeling for Skeletal Video Anomaly Detection"* in IEEE Transactions on Circuits and Systems for Video Technology [PDF]

2021 Bo Wu, **Shoubin Yu**, Zhenfang Chen, Joshua B., Tenenbaum, Chuang Gan *"STAR: A Benchmark for Situated Reasoning in Real-World Videos"* In Thirty-fifth Conference on Neural Information Processing Systems (NeurIPS 2021)[PDF]

Professional Services

Conference Reviewer

› ACL 2023, EACL 2023, CoNLL 2023, CVPR 2023 workshop, AAAI 2022 workshop

Journal Reviewer

- IEEE Transactions on Circuits and Systems for Video Technology

Scholastic Awards & Patents

- CN Patent CN114724062A, 2022.
- CN Patent CN110969107A, 2019.
- Shanghai Jiao Tong University Excellent Graduates, 2022
- The Hui-Chun Chin and Tsung Dao Lee Scholar, 2020
- Second Prize, China Undergraduate Mathematical Contest in Modeling, 2019
- Meritorious Award, Mathematical Contest in Modeling, 2019

Skills

Programming Languages:	Python, C++, bash
SW/ Tools:	Git, Docker, LaTeX, Arduino, Adobe Illustrator, Photo Shop
ML Libraries:	PyTorch, NumPy, OpenCV, Pandas