

# Shoubin Yu

[Yui010206.github.io](https://github.com/Yui010206) @ [shoubin@cs.unc.edu](mailto:shoubin@cs.unc.edu) [github.com/Yui010206](https://github.com/Yui010206)  
[in](#) [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** | **The University of North Carolina, CHAPEL HILL, USA**  
**Aug. 2022** | *Ph.D. in Computer Science* | Advisor: [Mohit Bansal](#)  
Concentration: Computer Vision, Multimodal Learning

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

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

## EXPERIENCE

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

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

**Apr. 2022** | **SenseTime, SHANGHAI, China**  
**Jan. 2021** | *Research Intern (CV)* | Advisor(s): [Wei Wu](#), [Haisheng Su](#)  
> Working on video anomaly detection.  
> Working on video representation learning.

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

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

**Sept. 2020** | **Shanghai Jiao Tong University, SHANGHAI, China**  
**Oct. 2019** | *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” Arxiv Preprint 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 2022, CVPR 2023 workshop, AAAI 2022 workshop

## Journal Reviewer

- › IEEE Transactions on Circuits and Systems for Video Technology

## SCHOLASTIC AWARDS & PATENTS

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- › 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

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**Programming Languages:** Python, C++, bash

**SW/ Tools:** Git, Docker,  $\text{\LaTeX}$ , Arduino, Adobe Illustrator, Photo Shop

**ML Libraries:** PyTorch, NumPy, OpenCV, Pandas