Ziyang **Wang**

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Education

University of North Carolina at Chapel Hill — *Chapel Hill, NC*

PhD in Computer Science, advised by Prof. Mohit Bansal — *Aug. 2022 - Exp. May. 2027*

University of Electronic Science and Technology of China — *Chengdu, China*

Bachelor of Engineer in Software Engineering. Overall GPA: 3.92. — *Sept. 2018 - Jun. 2022*

Research Interest

My research interest is video-language understanding and multimodal machine learning. Particularly, I am interested in developing the machine learning systems that could understand very long videos (multiple minutes to hours).

Work Experience

UNC-NLP — *Chapel Hill, NC*

Graduate Research Assistant, advised by Prof. Mohit Bansal, also work closely with Prof. Gedas Bertasius — *Aug. 2022 - PRESENT*

- Built interpretable Neural Network models to tackle some of the most challenging language tasks like summarization and QA.
- Published several academic papers in CV/NLP conferences including ICCV, EACL.

Meta FAIR — *Menlo Park, CA*

Research Intern, advised by Dr. Ronghang Hu, and Dr. Christoph Feichtenhofer — *May. 2024 - present*

- Work on the next generation video foundation model.

Amazon Alexa AI — *Seattle, WA*

Applied Scientist Intern, advised by Dr. Heba Elfardy, Dr. Kevin Small, Dr. Markus Dreyer — *May. 2023 - Oct. 2023*

- Improved the multimodal large language model's ability to retrieve both visual and textual outputs.
- Published a paper in EACL2024 (findings).

Tsinghua University — *Beijing, China*

Research Intern, advised by Prof. Jingjing Liu — *Oct. 2021 - May. 2022*

- Worked on a project to improve the visual question answering ability of the MLLMs.
- Also work on the project that focuses on Vehicle-Infrastructure Cooperative 3D Object Detection.

University of Electronic Science and Technology of China — *Chengdu, China*

Undergraduate Research Assistent, advised by Prof. Jingjing Li — *Feb. 2021 - Sept. 2021*

- Worked on Zero-shot Learning.
- Published the paper in CIKM21 as long oral, and paper in TCSVT 2022.

Papers

2024 **VideoTree: Adaptive Tree-based Video Representation for LLM Reasoning on Long Videos** — *Preprint*
Ziyang Wang*, Shoubin Yu*, Elias Stengel-Eskin*, Jaehong Yoon, Feng Cheng, Gedas Bertasius, Mohit Bansal

2024 **DAM: Dynamic Adapter Merging for Continual Video QA Learning** — *Preprint*
Feng Cheng*, **Ziyang Wang***, Yi-Lin Sung, Yan-Bo Lin, Mohit Bansal, Gedas Bertasius

2024 **Unified Embeddings for Multimodal Retrieval via Frozen LLMs** — *Malta*
Ziyang Wang*, Heba Elfardy, Markus Dreyer, Kevin Small, Mohit Bansal, *Findings of EACL 2024*

2023 **A Simple LLM Framework for Long-Range Video Question-Answering** — *Preprint*
Ce Zhang, Taixi Lu, Md Mohaiminul Islam, **Ziyang Wang***, Shoubin Yu, Mohit Bansal, Gedas Bertasius

2023 **Unified Coarse-to-Fine Alignment for Video-Text Retrieval** — *Paris, France*
Ziyang Wang*, Yi-Lin Sung, Feng Cheng, Gedas Bertasius, Mohit Bansal, *Proceedings of the ICCV 2023*

2022 **Language-Augmented Pixel Embedding for Generalized Zero-Shot Learning** — *Journal*
Ziyang Wang, Yunhao Gou, Jingjing Li, Lei Zhu, Heng Tao Shen, *IEEE Transactions on Circuits and Systems for Video Technology*

2021 **Region Semantically Aligned Network for Zero-Shot Learning** — *Virtual*
Ziyang Wang*, Yunhao Gou*, Jingjing Li, Yu Zhang, Yang Yang, *Proceedings of the CIKM 2021, long oral*

Service

Top CV/NLP conferences

Reviewer

- Engaged in the peer-review process in ECCV 2024, WACV 2025, ACL Rolling Review (multiple).

Transformers for Vision (T4V) workshop @ CVPR 2023 & 2024

Program Commitee

- Worked as a program committee member to help the reviewing process and other aspect of the workshop.