Songyang Zhang

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Education

University of Rochester Rochester, NY
Ph.D. Student in Computer Science, Advisor: Jiebo Luo *Aug 2018 – Present*

Zhejiang University Hangzhou, China
M.S. in Computer Science, Advisor: Jun Xiao *Sep 2015 – Mar 2018*

Southest University Nanjing, China
B.E. in Computer Science *Aug 2011 – Jun 2015*

Professional Experience

Facebook AI Research Menlo Park, CA
Research Intern, Mentor: Xi Yin *Jan 2022 - Aug 2022*

- Text-to-Video Generation (ECCV 2022, ICLR 2023, 1 Submission)

Tencent AI Lab Bellevue, WA
Research Intern, Mentor: Linfeng Song, Lifeng Jin, Kun Xu *Sep 2021 - Dec 2021*

- Unsupervised Grammar Induction (EMNLP 2022)

Microsoft Redmond, WA
Research Intern, Mentor: Jiang Wang, Quanzeng You *May 2021 - Aug 2021*

- Moment Localization with Natural Language

Tencent AI Lab Bellevue, WA
Research Intern, Mentor: Linfeng Song, Lifeng Jin, Kun Xu *May 2020 - Aug 2020*

- Unsupervised Grammar Induction (NAACL 2021)
- Best Long Paper Award in NAACL 2021 (1/1797)

Microsoft Research Asia Beijing, China
Research Intern, Mentor: Houwen Peng, Jianlong Fu *May 2019 - Aug 2019*

- Moment Localization with Natural Language (AAAI 2020, TPAMI 2021)
- Rank 1 in HACS Temporal Action Localization Challenge at ICCV 2019

Tencent AI Lab Shenzhen, China
Research Intern, Mentor: Lin Ma, Linchao Bao *Mar 2018 - Aug 2018*

- Temporal Action Localization

Publications

* Equal contribution, ordered alphabetically

Ali Vosoughi, Shijian Deng, **Songyang Zhang**, Yapeng Tian, Chenliang Xu and Jiebo Luo, "Possible Worlds VQA: Cross Modality Bias Reduction in Visual Question Answering Systems from a Causal View." *Submitted, 2023*

Jie An*, **Songyang Zhang***, Harry Yang, Sonal Gupta, Jia-Bin Huang, Jiebo Luo, Xi Yin, "Latent Diffusion with Temporal Shift for Efficient Text-to-Video Generation." *Submitted, 2023*

Uriel Singer, Adam Polyak, Thomas Hayes, Xi Yin, Jie An, **Songyang Zhang**, Qiyuan Hu, Harry Yang, Oron Ashual, Oran Gafni, Devi Parikh, Sonal Gupta, Yaniv Taigman, "Make-A-Video: Text-to-Video Generation without Text-Video Data." *ICLR 2023*

Songyang Zhang , Linfeng Song, Lifeng Jin, Kun Xu, Dong Yu and Jiebo Luo, "Learning a Grammar Inducer from Massive Uncurated Instructional Videos." *EMNLP 2022* [Oral]

Xingchen Li, Long Chen, Jian Shao, Shaoning Xiao, **Songyang Zhang**, Jun Xiao, "Rethinking the Evaluation of Unbiased Scene Graph Generation." *BMVC 2022* [Oral]

Bolin Ni, Houwen Peng, Minghao Chen, **Songyang Zhang**, Gaofeng Meng, Jianlong Fu, Shiming Xiang, Haibin Ling, "Expanding Language-Image Pretrained Models for General Video Recognition." *ECCV 2022* [Oral]

Thomas Hayes*, **Songyang Zhang***, Xi Yin, Guan Pang, Sasha Sheng, Harry Yang, Songwei Ge, Isabelle Hu, Devi Parikh, "MUGEN: A Playground for Video-Audio-Text Multimodal Understanding and GENeration." *ECCV 2022*

Lin Li, Long Chen, Yifeng Huang, Zhimeng Zhang, **Songyang Zhang**, Jun Xiao, "The Devil is in the Labels: Noisy Label Correction for Robust Scene Graph Generation." *CVPR 2022* [Oral]

Jiahui Li, Kun Kuang, Lin Li, Long Chen, **Songyang Zhang**, Jian Shao, Jun Xiao, "Instance-wise or Class-wise?A Tale of Neighbor Shapley for Concept-based Explanation." *ACM MM 2021*

Zhengyuan Yang, **Songyang Zhang**, Liwei Wang, Jiebo Luo, "SAT: 2D Semantics Assisted Training for 3D Visual Grounding." *ICCV 2021* [Oral]

Songyang Zhang, Linfeng Song, Lifeng Jin, Dong Yu, Jiebo Luo, "Video-aided Unsupervised Grammar Induction." *NAACL 2021* [Best Long Paper Award]

Songyang Zhang, Houwen Peng, Jianlong Fu, Yijuan Lu, Jiebo Luo, "Multi-Scale 2D Temporal Adjacency Networks for Moment Localization with Natural Language." *TPAMI 2021*

Shaoning Xiao, Long Chen, **Songyang Zhang**, Wei Ji, Jian Shao, Lu Ye, Jun Xiao, "Boundary Proposal Network for Two-Stage Natural Language Video Localization." *AAAI 2021*

Songyang Zhang, Tolga Aktas, Jiebo Luo, "Mi YouTube es Su YouTube? Analyzing the Cultures using YouTube Thumbnails of Popular Videos." *IEEE Big Data 2021*

Li Sun*, Haoqi Zhang*, **Songyang Zhang**, Jiebo Luo, "Content-based Analysis of the Cultural Differences between TikTok and Douyin." *IEEE Big Data 2020*

Jie An, Tianlang Chen, **Songyang Zhang**, Jiebo Luo, "Global Image Sentiment Transfer." *ICPR 2020*

Songyang Zhang, Houwen Peng, Le Yang, Jianlong Fu, Jiebo Luo, "Learning 2D Temporal Adjacent Networks for Temporal Action Localization." HACS Temporal Action Localization Challenge at *ICCV 2019* [Winner]

Songyang Zhang, Houwen Peng, Jianlong Fu, Jiebo Luo, "Learning 2D Temporal Adjacent Networks for Moment Localization with Natural Language." *AAAI 2020*

Songyang Zhang, Jinsong Su, Jiebo Luo, "Exploiting Temporal Relationships in Video Moment Localization with Natural Language." *ACMMM 2019*

Jiageng Feng, **Songyang Zhang**, Jun Xiao, "Explorations of skeleton features for LSTM-based action recognition." *MTA 2017*

Songyang Zhang, Jun Xiao, Xiaoming Liu, Yang Yi, Yueting Zhuang, "Fusing Geometric Features for Skeleton-Based Action Recognition using Multilayer LSTM Networks." *TMM 2017*

Songyang Zhang, Xiaoming Liu, Jun Xiao, "On Geometric Features for Skeleton-Based Action Recognition Using Multilayer LSTM Networks." *WACV 2017*

Honors & Awards

Best Long Paper Award at NAACL 2021	*Jun 2021*
Winner, HACS Temporal Action Localization Challenge at ICCV 2019	*Oct 2019*
Student Travel Award at ACM Multimedia 2019	*Oct 2019*
Winner, RoboCup China Open 2014 Competition	*Oct 2014*

Services

Reviewer:

- Conference: ICIG'21, ACMMM'21, CVPR'22, BMVC'22, ACMMM'22, ACL'22, ACL'23
- Journal: TPAMI'18, TII'19, TMM'20, NEUCOM'20, TIP'20, TCSVT'21, TMM'21, IJCV'22, TPAMI'23