# Songyang Zhang

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May 2019 - Aug 2019

Mar 2018 - Aug 2018

#### Education

University of Rochester Ph.D. Student in Computer Science, Advisor: Jiebo Luo	Rochester, NY Aug. 2018 – Present
Zhejiang University M.S. in Computer Science, Advisor: Jun Xiao	Hangzhou, China Sep. 2015 – Mar. 2018
Southest University B.E. in Computer Science	Nanjing, China Aug. 2011 – Jun. 2015

### **Professional Experience**

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

o Text-to-Video Generation (ECCV 2022, Two Submissions)

Tencent AI Lab

Research Intern, Mentor: Linfeng Song, Lifeng Jin, Kun Xu

Bellevue, WA

Sep 2021 - Dec 2021

o 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

o 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

• Moment Localization with Natural Language (AAAI 2020, TPAMI 2021)

o Rank 1 in HACS Temporal Action Localization Challenge at ICCV 2019

Tencent AI Lab Shenzhen, China

Research Intern, Mentor: Lin Ma, Linchao Bao

• Temporal Action Localization

#### **Publications**

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

**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]

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", *In Submission to ICLR 2023, Under Review* 

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]

 $<sup>*\</sup> Equal\ contribution,\ ordered\ alphabetically$ 

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 Biq 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
Large Scale 3D Human Activity Analysis Challenge in Depth Videos	
Rank 4 in Recognition Track, 6 in Detection Track, granted by ICME 2017 Workshop	$\mathrm{Apr}\ 2017$
Rank 6, granted by ACCV 2016 Workshop	Oct 2016
Robocup 3D Simulation	
Winner, RoboCup China Open 2014 Competition	Oct 2014
Rank 5-8, Robocup 2014 Competition, Brazil	Jul 2014

# Services

#### Reviewer:

- o Conference: CVPR, ICCV, ECCV, ACL, EMNLP, NAACL, AAAI, ACCV, WACV, ACMMM
- o Journal: TPAMI, IJCV, TMM, TIP, TCSVT, Pattern Recognition, Neural Computing