

Yuxiao Chen

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RESEARCH INTERESTS

- **Vision-language model learning** (e.g., large-scale multimodal model pre-training, image-text matching)
- **Skeleton-based human action understanding** (e.g., human/hand pose modeling, estimation, and representation learning)
- **Data mining in social media**

EDUCATION

Rutgers University , Piscataway, NJ, USA Ph.D. in Computer Science	<i>09/2018 - Present</i> Advisor: Dimitris Metaxas
University of Rochester , Rochester, NY, USA M.S. in Computer Science	<i>09/2016 - 05/2018</i> Advisor: Jiebo Luo
Sun Yat-sen University , Guangzhou, China B.E. in Software Engineering	<i>09/2012 - 06/2016</i>

RESEARCH EXPERIENCE

Rutgers, The State University of New Jersey • <i>Research Assistant</i> , Advisor: Dimitris Metaxas <ul style="list-style-type: none">– human/hand pose modeling, estimation and representation learning [BMVC'19, CVPR'20, ECCV'22]– Sign language video understanding [LREC'22, LREC'24]	Piscataway, NJ, USA <i>09/2018 - Present</i>
NEC Laboratories America Inc • <i>Research Intern</i> , Mentor: Kai Li <ul style="list-style-type: none">– Open-set video action localization and grounding. [submitted to ECCV'24]	Princeton, NJ, USA <i>05/2023 - 08/2023</i>
Bytedance, AML Research • <i>Research Intern</i> , Mentor: Jianbo Yuan , Yu Tian , Xinyu Li <ul style="list-style-type: none">– Large-scale multimodal (image-text) models pre-training [ICLR'23, CVPR'23]	Seattle, WA, USA <i>05/2022 - 08/2022</i>
Amazon, Softline Discovery • <i>Research Intern</i> , Advisor: Jianbo Yuan <ul style="list-style-type: none">– Image-text matching/retrieval [WACV'23]	Seattle, WA, USA <i>05/2020 - 08/2020</i>
University of Rochester • <i>Research Assistant</i> , Advisor: Jiebo Luo <ul style="list-style-type: none">– Data mining in social media [WWW'17, WWW'18, ICWSM'18, Big Data'18, ACM MM'18]	Rochester, NY, USA <i>09/2016 - 05/2018</i>
Tencent, Youtu Lab • <i>Research Intern</i> , Mentor: Pai Peng <ul style="list-style-type: none">– Medical images analysis	Shanghai, China <i>05/2017 - 08/2018</i>

PUBLICATIONS

Vision-Language Model Learning

Yuxiao Chen, Kai Li, Wentao Bao, Deep Patel, Yu Kong, Martin Renqiang Min, Dimitris N. Metaxas. Learning to Localize Actions in Instructional Videos with LLM-Based Multi-Pathway Text-Video Alignment.” (Submitted to [ECCV'24](#))

Wentao Bao, Kai Li, **Yuxiao Chen**, Deep Patel, Martin Renqiang Min, Yu Kong. “Exploiting VLM Localizability and Semantics for Open Vocabulary Action Detection.” (Submitted to ECCV’24)

Yuxiao Chen, Jianbo Yuan, Yu Tian, Shijie Geng, Xinyu Li, Ding Zhou, Dimitris N. Metaxas, Hongxia Yang, “[Revisiting Multimodal Representation in Contrastive Learning: From Patch and Token Embeddings to Finite Discrete Tokens](#)” in IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2023

Shijie Geng, Jianbo Yuan, Yu Tian, **Yuxiao Chen**, Yongfeng Zhang, “[HiCLIP: Contrastive Language-Image Pretraining with Hierarchy-aware Attention](#)” in International Conference on Learning Representations (ICLR), 2023

Yuxiao Chen, Jianbo Yuan, Long Zhao, Tianlang Chen, Rui Luo, Larry Davis, Dimitris N. Metaxas, “[More Than Just Attention: Improving Cross-Modal Attentions with Contrastive Constraints for Image-Text Matching](#),” in IEEE/CVF Winter Conference on Applications of Computer Vision (WACV), 2023

Human/Hand Pose Modeling

Yuxiao Chen, Long Zhao, Jianbo Yuan, Yu Tian, Zhaoyang Xia, Shijie Geng, Dimitris N. Metaxas, “[Hierarchically Self-Supervised Transformer for Human Skeleton Representation Learning](#),” in European Conference on Computer Vision (ECCV), 2022.

Zhaoyang Xia, **Yuxiao Chen**, Qilong Zhangli, Matt Huenerfauth, Carol Neidle, Dimitris Metaxas “[Sign Language Video Anonymization](#),” in Language Resources and Evaluation Conference (LREC) Workshop, 2022.

Long Zhao, Xi Peng, **Yuxiao Chen**, Mubbasir Kapadia, Dimitris N. Metaxas, “[Knowledge as Priors: Cross-Modal Knowledge Generalization for Datasets without Superior Knowledge](#),” in IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2020

Yuxiao Chen, Long Zhao, Xi Peng, Jianbo Yuan, Dimitris N. Metaxas, “[Construct dynamic graphs for hand gesture recognition via spatial-temporal attention](#),” In British Machine Vision Conference (BMVC), 2019.

Data Mining in Social Media

Yuxiao Chen*, Jianbo Yuan*, Quanzeng You, Jiebo Luo, “[Twitter Sentiment Analysis via Bi-sense Emoji Embedding and Attention-based LSTM](#),” In ACM Multimedia Conference (ACM MM),2018.***Contributed equally**

Weijian Li*, **Yuxiao Chen***, Tianran Hu and Jiebo Luo, “[Mining the Relationship between Emoji Usage Patterns and Personality](#)”, In AAAI International Conference on Web and Social Media (ICWSM), 2018. ***Contributed equally**

Tianlang Chen, **Yuxiao Chen**, Han Guo, and Jiebo Luo, “[You Type a Few Words and We Do the Rest: Image Recommendation for Social Multimedia Posts](#),” In IEEE International Conference on Big Data, 2018.

Tianlang Chen, **Yuxiao Chen**, Han Guo, Jiebo Luo, “[When E-commerce Meets Social Media: Identifying and Mining Business on WeChat Moment Using Bilateral-Attention Task-driven LSTM](#)”, In The World Wide Web Conference (WWW), 2018.

Tianlang Chen, **Yuxiao Chen** and Jiebo Luo, “[A Selfie is Worth a Thousand Words: Mining Personal Patterns behind User Selfie-posting Behaviours](#)”, In the World Wide Web Conference (WWW), 2017.

TECHNICAL SKILLS

Programming Languages Proficient in Python, skilled in C++, Java, Ruby

Tools & Framework & System: PyTorch, TensorFlow, Caffe, Spark, Linux OS

ACADEMIC SERVICES

Conference & Journal Reviewer

- IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)
- International Conference on Computer Vision (ICCV)
- European Conference on Computer Vision (ECCV)
- AAAI Conference on Artificial Intelligence (AAAI)
- IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)