

Tackling Data Scarcity in Vision and Language

Monday, February 22, 2021, 16:30 MST

Via Zoom: <https://asu.zoom.us/j/89817732811>

Abstract:

Data is the fuel of deep learning. We have witnessed incredible progress of deep learning everywhere empowered by big data. However, for challenging vision-and-language tasks that involve multi-turn human interactions, data collection is prohibitively expensive and time-consuming. In this talk, I will talk about our recent efforts on tackling data scarcity in such tasks like vision-and-language navigation and iterative text-to-image editing: (1) Self-supervised counterfactual reasoning, which incorporates counterfactual thinking to augment out-of-distribution data; (2) Multimodal text style transfer, which learns to better leverage external resources to mitigate data scarcity in outdoor navigation tasks; (3) Environment-agnostic multitask navigation, which transfers the knowledge across different language grounded navigation tasks.



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Bio:

Xin (Eric) Wang is an Assistant Professor of Computer Science and Engineering at UC Santa Cruz. He obtained his Ph.D from UC Santa Barbara and Bachelor's degree from Zhejiang University. His research interests include Natural Language Processing, Computer Vision, and Machine Learning, with an emphasis on building embodied AI agents that can communicate with humans using natural language to perform real-world tasks.

Xin has served as Area Chair for NAACL 2021 and EMNLP 2020, Senior Program Committee (SPC) for IJCAI 2021, and Session Chair for EMNLP 2020 and AAAI 2019, and has organized multiple workshops and tutorials at ACL, CVPR, ICCV, AACL, etc. He received the CVPR Best Student Paper Award in 2019.

Host: Zhiyuan Fang, Chitta Baral, Yezhou Yang

The Active Perception Group explores robotic visual learning, tying together the fields of active vision, natural language processing and AI reasoning.

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