Tian Yun

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EDUCATION

Brown University Providence, RI
Doctor of Philosophy in Computer Science *September 2022 - Present*

Brown University Providence, RI
Master of Science in Computer Science *August 2020 - May 2022*

Wake Forest University Winston-Salem, NC
Bachelor of Science in Mathematical Statistics *August 2016 - May 2020*
Honors Bachelor of Science in Computer Science

PUBLICATIONS

[1] *Can Frozen Large Language Models Solve Visual Reasoning?*
Tian Yun, Ellie Pavlick, Chen Sun
Under Review

[2] *mOthello: When Do Cross-Lingual Representation Alignment and Cross-Lingual Transfer Emerge in Multilingual*
Tianze Hua*, **Tian Yun***, Ellie Pavlick
NAACL 2024

[3] *Emergence of Grounded Representations in Embodied Sequence Modeling*
Tian Yun*, Zilai Zeng*, Kunal Handa, Ashish Thapliyal, Bo Pang, Ellie Pavlick, Chen Sun
EMNLP 2023

[4] *Improved Inference of Human Intent by Combining Plan Recognition and Language Feedback*
Ifrah Idrees, **Tian Yun**, Naveen Sharma, Nakul Gopalan, Stefanie Tellex, George Konidaris
IROS 2023

[5] *Do Vision-Language Pretrained Models Learn Primitive Concepts?*
Tian Yun, Usha Bhalla, Ellie Pavlick, Chen Sun
TMLR

[6] *Does Vision-and-Language Pretraining Improve Lexical Grounding?*
Tian Yun, Chen Sun, Ellie Pavlick
Findings of EMNLP, 2021

[7] *Mining Biomedical Texts for Pediatric Information*
Tian Yun, Deepti Garg, Natalia Khuri
14th International Joint Conference on Biomedical Engineering Systems and Technologies, 2021

PREPRINTS

[8] *BLOOM: A 176B-Parameter Open-Access Multilingual Language Model*
Teven Scao et al.
arXiv preprint arXiv:2211.05100 (2022)

RESEARCH EXPERIENCE

LUNAR Lab & PALM Lab, Brown University Providence, RI

Co-advised by Ellie Pavlick and Chen Sun *August 2020 – Present*

- Investigated whether vision-and-language (VL) pretraining yields better linguistic representations.
- Researched whether pretrained vision-and-language (VL) models learn composable primitive concepts.
- Studied how grounded world representations emerge in embodied sequence modeling.

Humans to Robots Lab, Brown University Providence, RI

Advised by Stefanie Tellex *March 2021 – December 2023*

- Proposed a situation-aware coaching dialogue system that guides users to accomplish daily tasks by reasoning over uncertainties in the environment and asking clarification questions to the users.

Google Mountain View, CA

Student Researcher, Advised by Bo Pang and Ashish Thapliyal *June 2022 – August 2022*

- Studied how well vision-and-language models can leverage learned visual commonsense knowledge to adapt to new visual commonsense knowledge in synthetic environment.

BigScience Workshop, HuggingFace Providence, RI

Advised by Ellie Pavlick *May 2021 – Aug 2022*

- Co-led the engineering team in Evaluation working group to build an evaluation pipeline with a large set of prompted datasets for large language models.

DataMine Research Group, Wake Forest University Winston-Salem, NC

Advised by Natalia Khuri *August 2019 – August 2020*

- Built a pipeline with machine learning algorithms to extract information about safety and efficacy of drugs in pediatric populations from approved drug product labels.

TEACHING ASSISTANTSHIPS

CSCI-1470/2470: Deep Learning, Brown University *September 2021 – December 2021*

Teaching Assistant Instructor: Chen Sun

CSCI-1460: Computational Linguistics, Brown University *January 2021 – April 2021*

Teaching Assistant Instructor: Eugene Charniak

Computer Science Peer Tutor, Wake Forest University *September 2017 – May 2020*

SERVICE (*outstanding reviewer)

Conference Reviewer

- ACL Rolling Review *2024*
- Computer Vision and Pattern Recognition (CVPR) *2022, 2023, 2024*
- European Conference on Computer Vision (ECCV) *2022, 2024*
- International Conference on Computer Vision (ICCV) *2023**