

# Tian Yun

tttyuntian.github.io | tian\_yun@brown.edu | (530) 551-9835

## EDUCATION

---

<b>Brown University</b> <i>Doctor of Philosophy in Computer Science.</i>	Providence, RI <i>September 2022 - Present</i>
---	---

<b>Brown University</b> <i>Master of Science in Computer Science.</i>	GPA:4.00/4.00	Providence, RI <i>August 2020 - May 2022</i>
--	---------------	---

<b>Wake Forest University</b> <i>Bachelor of Science in Mathematical Statistics</i>	GPA:3.92/4.00	Winston-Salem, NC <i>August 2016 - May 2020</i>
<i>Honors Bachelor of Science in Computer Science</i>	GPA:3.96/4.00	

## RESEARCH EXPERIENCE

---

<b>LUNAR Lab &amp; PALM Lab, Brown University</b> <i>Co-advised by Ellie Pavlick and Chen Sun</i>	Providence, RI <i>August 2020 – Present</i>
--	--

- 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.

<b>Humans to Robots Lab, Brown University</b> <i>Advised by Stefanie Tellex</i>	Providence, RI <i>March 2021 – Present</i>
--	---

- 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.

<b>BigScience Workshop, HuggingFace</b> <i>Advised by Ellie Pavlick</i>	Providence, RI <i>May 2021 – Jan 2023</i>
--	--

- 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.

<b>DataMine Research Group, Wake Forest University</b> <i>Advised by Natalia Khuri</i>	Winston-Salem, NC <i>August 2019 – August 2020</i>
---	---

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

## PUBLICATIONS

---

[1] *Emergence of Grounded Representations in Embodied Sequence Modeling.*

**Tian Yun\***, Zilai Zeng\*, Kunal Handa, Ashish Thapliyal, Bo Pang, Ellie Pavlick, Chen Sun.  
*EMNLP 2023*

[2] *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*

[3] *Do Vision-Language Pretrained Models Learn Primitive Concepts?*

**Tian Yun**, Usha Bhalla, Ellie Pavlick, Chen Sun.  
*TMLR*

[4] *Does Vision-and-Language Pretraining Improve Lexical Grounding?*

**Tian Yun**, Chen Sun, Ellie Pavlick.

[5] *Mining Biomedical Texts for Pediatric Information.*

**Tian Yun**, Deepti Garg, Natalia Khuri.

*14th International Joint Conference on Biomedical Engineering Systems and Technologies, 2021*

## PREPRINTS

---

[6] *BLOOM: A 176B-Parameter Open-Access Multilingual Language Model*

Teven Scao et al.

*arXiv preprint arXiv:2211.05100 (2022)*

## PROFESSIONAL EXPERIENCE

---

### Google

Mountain View, USA

*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.

### Tencent

Shenzhen, China

*Data Analyst Intern*

*May 2019 – August 2019*

- Extracted and processed billions of rows of data to monitor QQ Kandian and Kandian APP using Hive-SQL.
- Used Flask and Git Webhook to develop a back-end service to automate script uploading and task scheduling.
- Evaluated and predicted the customer attrition in the following week (AUC score of 0.9173).

## 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

- Computer Vision and Pattern Recognition (CVPR) 2022, 2023
- European Conference on Computer Vision (ECCV) 2022
- International Conference on Computer Vision (ICCV) 2023\*