

ZHANG Ao(张傲)

· zhangao6@outlook.com · <https://waxnkw.github.io/>

EDUCATION

National University of Singapore, School of Computing Aug. 2021 – Now

- second year Ph.D student supervised by Prof. Tat-Seng Chua

Nanjing University, Software Engineering Sep. 2016 – Jul. 2020

- **Degree:** Bachelor
- **GPA:** 4.47/5.0 (top 10%)
- First Prize of Undergraduate Thesis at Nanjing University (**top 1% at my department**)

EXPERIENCE

NExT Research Centre, National University of Singapore Aug. 2021 – Now

- **Role:** Ph.D student
- **Advisor:** Tat-Seng Chua
- **Research Area:** Vision and language understanding

THUNLP, Tsinghua University Sep. 2020 – Jul. 2021

- **Role:** Research Assistant
- **Advisor:** Zhiyuan Liu
- **Research Area:** Visual relation detection

MAGUS, Nanjing University Oct. 2018 – Jul. 2020

- **Role:** Research Assistant
- **Advisor:** Tongwei Ren
- **Research Area:** Social relation detection, cross-modal retrieval

SELECTED PUBLICATIONS

- **Ao Zhang***, Yuan Yao*, Qianyu Chen, Wei Ji, Zhiyuan Liu, Maosong Sun, Tat-Seng Chua. Fine-Grained Scene Graph Generation with Data Transfer. accepted by ECCV 2022 (Oral, 2.7%)
(* indicates equal contribution)
- Yuan Yao*, Qianyu Chen*, **Ao Zhang**, Wei Ji, Zhiyuan Liu, Tat-Seng Chua, Maosong Sun. PEVL: Position-enhanced Pre-training and Prompt Tuning for Vision-language Models. EMNLP 2022
(* indicates equal contribution)
- Yuan Yao*, **Ao Zhang***, Zhengyan Zhang, Zhiyuan Liu, Tat-Seng Chua, Maosong Sun. CPT: Colorful Prompt Tuning for Pre-trained Vision-Language Models.
(* indicates equal contribution)
- Yuan Yao*, **Ao Zhang***, Xu Han, Mendi Li, Cornelius Weber, Zhiyuan Liu, Stefan Wermter, Maosong Sun. Visual Distant Supervision for Scene Graph Generation. accepted by ICCV 2021
(* indicates equal contribution)

RESEARCH PROJECTS

Fine-Grained Scene Graph Generation with Data Transfer. | NExT at NUS | advised by Tat-Seng Chua

- **Description:** (1) Design a noisy data correction method (IETrans) for fine-grained scene graph generation. (2) Propose a new VG-1800 benchmark, which can provide reliable and stable evaluation for large-scale SGG.

CPT: Colorful Prompt Tuning for Pre-trained Vision-Language Models | NExT at NUS | advised by Tat-Seng Chua

- **Description:** (1) Design a colorful prompt tuning schema for pre-trained vision language model. (2) Achieve sota results on zero-shot and few-shot visual grounding tasks.

Distant Supervision for Scene Graph Generation | THUNLP at Tsinghua University | advised by Zhiyuan Liu

- **Description:** (1) Use distant supervision to conduct weakly supervised scene graph generation. (2) Construct a visual relation knowledge base automatically from web image-text pairs. (3) Design a EM algorithm based denoising framework, and achieve state of the art performance under weakly supervised visual relation detection setting.

AWARDS

• Research Achievement Awards in NUS	2023
• First Prize of People’s Scholarship	2019
• Second Prize of China Undergraduate Mathematical Contest in Modeling	2018
• Successful Participant of MCM/ICM	2018
• CETC The 14TH Research Institute Glarun Scholarship	2017
• Second Prize of People’s Scholarship	2016

SKILLS

Python, PyTorch, NumPy, Java, and C++