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## **EDUCATION**

## **Fudan University**

Shanghai, China

Master of Engineering in Electrical and Electronics. (GPA 3.56/4.00, rank 30/351) Supervised by Prof. Tao Chen.

Sep. 2021 - Jun. 2024

## **Fudan University**

Bachelor of Data Science. (GPA 3.20/4.00)

Shanghai, China Sep. 2017 - Jun. 2021

#### Research Interests

• My current research interests include: 3D scene understanding, vision and language, and multi-modal learning.

#### Publications and Projects

### • Conference Proceedings

o [CVPR 2023] Sijin Chen, Hongyuan Zhu, Xin Chen, Yinjie Lei, Gang Yu, and Tao Chen<sup>†</sup>. End-to-End 3D Dense Captioning with Vote2Cap-DETR. In Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition, pages 11124–11133, 2023. [arXiv] [code] [youtube].

[Summary]: We address 3D Dense Captioning as a set prediction problem with parallel decoding.

## • Manuscripts Under Review

o [arXiv] Sijin Chen, Hongyuan Zhu, Mingsheng Li, Xin Chen, Peng Guo, Yinjie Lei, Gang Yu, Taihao Li, and Tao Chen<sup>†</sup>. Vote2Cap-DETR++: Decoupling Localization and Describing for End-to-End 3D Dense Captioning. arXiv preprint arXiv:2309.02999, 2023. [arXiv] [code].

[Summary]: Decoupled feature extraction and task decoding for 3D Dense Captioning.

o Mingsheng Li, Sijin Chen, Shengji Tang, Hongyuan Zhu, Fukun Yin, Tao Chen<sup>†</sup>. WI3D: Weakly Incremental 3D Detection via Visual Prompts.

[Summary]: Introduce novel concepts to a 3D object detector with 2D foundation models.

#### • Other Projects

• [Undergraduate Thesis] Self-Supervised Pre-training on 3D Point Clouds. [Supervisor] Prof. Tao Chen, School of Information Science and Technology, Fudan University. [Summary]: Global and patch-level contrastive learning for 3D point clouds.

### Internship

# Huawei Technologies Shanghai R&D Center

Shanghai, China

AI Engineer, Supervised by Dr. Zhiwen Cheng

Jul. 2020 - Oct. 2020

• Research on Convex Optimization Algorithms for Compressed Sensing.

# Invited Talks

- Winner presentation of the Scan2Cap Challenge in the 3rd Language for 3D Scene Workshop, ICCV 2023. [slides].
- Paper presentation at the Workshop for Advances in 3D Vision, VALSE 2023, Wixi, China.

## Competition Awards and Scholarships

- 2023.10 1st place of the Scan2Cap Challenge in the 3rd Language for 3D Scene Workshop at ICCV 2023.
- **2022.09 2023.06** National Award (rank 1/46).
- 2021.09 2022.06 2nd prize of the Scholarship for Oustanding Students of Master's Degrees at Fudan University.
- 2021.09 Award for the Scholarship for Outstanding Students of Master's Degrees at Fudan University.
- 2020.09 2021.06 2nd prize of the Scholarship for Outstanding Students at Fudan University.