Liu Dai

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Last Updated on Oct. 6, 2022

## **EDUCATION**

## Tongji University

Shanghai, China

B.Eng. in Computer Science, College of Electronic & Information Engineering.

Sept. 2019 - July. 2024

- Gap Year for Research: Sept. 2021 - Sept. 2022

### **PUBLICATION**

\*: equivalent contribution, #: corresponding author.

### • 3D-Aware Object Goal Navigation

Anonymous Authors (under double-blind review)
Submitted to International Conference on Learning Representations(ICLR) 2023

### • Discovering Novel Categories in SAR Images in Open Set Conditions

Liu Dai, Weiwei Guo#, Zenghui Zhang, Wenxian Yu

Published at IEEE/GRSS International Geoscience and Remote Sensing Symposium (IGARSS) 2022

## EXPERIENCE

#### Research Experience

### Peking University

Beijing, China

Undergraduate Research Intern, Center on Frontiers of Computing Studies

Mar. 2022 - Present

Advisor: Prof. He Wang

Topic: Active 3D Scene Understanding & Navigation

- We built 3D-aware intelligent agent for Object Goal Navigation Task.
- I conducted part of method design, coding, writing & plotting. It was my first time to step into 3D Vision, and I found it really exciting & promising to build embodied AI for real- and open-world, for which 3D-vision-related techniques are almost indispensable.

#### Tongji-MIT City Science Lab

Shanghai, China

Undergraduate Research Intern

Sept. 2021 - Mar. 2022

Advisor: Prof. Weiwei Guo

Topic: Remote Sensing Image Interpretation with Deep Learning in Open & Challenging World

- To the best of our knowledge, we were the first to introduce Novel Category Discovery(NCD) into the remote sensing community. We started from a application-driven problem: When encountered with new and unlabelled SAR data, what can we do to make best use of that much data we have labelled?
- The project itself introduced me into Deep Learning & Computer Vision and piqued my interest in the setting of open-world. I undertook the most of coding, writing & plotting.

### TEACHING EXPERIENCE

Teaching Assistant for Opensource Hardware and Programming (55010501)

Tongji University
2021 Fall

Working with Prof. Xiaohua Sun

- Delivering courses on Python & Arduino

# AWARDS

•	National First Prize of Challenge Cup Competition: Research Track;	2021
	<ul> <li>Most Influential Research Competition among University Students in China.</li> <li>Best Record in College History.</li> </ul>	
•	Gold Award in Shanghai of Internet+ Competition;	2022
•	Gold Award in Shanghai of Challenge Cup Competition: Entrepreneurship Track;	2022
•	$\textbf{Silver Award in Shanghai} \ \text{of National College Student "Innovation, Creativity\&Entrepreneurship"} \ \text{Challenge}; \\$	2022
•	$\textbf{Second Prize in Shanghai} \ \& \ \textbf{College Champion} \ \text{of} \ \textit{FLTRP Cup} \ \text{National English Public Speaking Contest};$	2020
•	Outstanding Student Scholarship of Tongji University; 2020,	2021

# SKILLS

• **Programming:** C/C++, Python, Arduino;

• Tools: Pytorch, OpenCV, Open3D, Habitat Simulator;

• Other Skills: Public Speaking, Presentation;

# LANGUAGE

English: FluentChinese: NativeFrench: Basic