Xiaoyu Ye

Personal Data

Name:	Xiaoyu Ye (冶晓宇)
Gender:	Male
Place and Date of Birth:	Shenzhen, China | 27 Nov 2001
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GitHub:	https://github.com/victor-cilay

Education

09/2024–Now	**Ph.D.** in FNii, CUHK(SZ)
	Supervisor: Dr. Zhen Li
10/2023–04/2024	**International Exchange Student**
	Technical University of Munich (TUM), Germany
	Major: Informatics(Computer Science)
10/2020–06/2024	**Bachelor of Science** in Cyberspace Science and Technology
	Beijing Institute of Technology (BIT), China
	GPA: 81.5/100

Research Experience

12/2024–Now	**Research Intern** at Noah's Ark Lab, Huawei Inc.
	3D Large Scale Driving Scene Generation
	Co-advised by Dr. Bingbing Liu, Dr. Yingjie Cai, Dr. Xu Yan
05/2024–08/2024	**Research Assistant** at Deep Bit Lab
	Future Network of Intelligence Institute, CUHK(SZ)
	3D Large scene reconstruction, Generation
	Co-advised by Dr. Zhen Li, Dr. Shuguang Cui
04/2023–10/2023	**Research Intern** at DISCOVER Lab
	Institute for AI Industry Research, Tsinghua University
	Neural 3D Representation, 3D Computer Vision
	Co-advised by Dr. Yongling Shi, Dr. Hao Zhao, and Dr. Ya-Qin Zhang

Selected Publications

Conference Proceedings

[1] B. Xiong, X. Ye, T. H. E. Tse, K. Han, *et al.*, *SA-GS: Semantic-Aware Gaussian Splatting for Large Scene Reconstruction with Geometry Constrain*, 2024. arXiv: 2405.16923 [cs.CV]. URL: https://saliteta.github.io/SA-GS-public/.

[2] B. Ye, C. Liu, X. Ye, Y. Chen, *et al.*, "Blending distributed nerfs with tri-stage robust pose optimization," in *International Conference on Intelligent Robots and Systems(IROS)*, Oral Pitch, 2024. arXiv: 2405.02880 [cs.CV].

[3] Z. Wu, T. Liu, L. Luo, Z. Zhong, *et al.*, "MARS: An Instance-aware, Modular and Realistic Simulator for Autonomous Driving," in *CAAI International Conference on Artificial Intelligence (CICAI)*, Best Paper Runner-up Award, Jul. 2023. arXiv: 2307.15058 [cs].

Projects

1 NeRF-based Simulator for Complex Dynamic Outdoor Driving Scene

- Proposed a state-of-the-art solution for reconstructing complex dynamic outdoor driving scenes using compositional neural radiance fields.
- Implemented an agile code framework that built upon NeRFStudio as tech leader.
- Published a conference paper [3] in CICAI 2023, we delivered an oral presentation, and got the Best Paper Runner-up Award.

2 Brain Diseases Diagnosis Based on CT Image

- Conducted a student research project, which received support from the academy, that focused on the development of a model that provides early diagnosis reports for brain diseases based on the symmetry characteristic of CT images.
- This project utilized advanced image processing techniques and model pre-training to achieve a high degree of accuracy in generating diagnose reports. The main contribution of this project was the development of an innovative approach to the early detection of brain diseases, which has the potential to significantly improve patient outcomes.

3 Campus Errand Service Platform on Mini Program

- Designed and developed BETArrive, a campus service platform that enables students to act as both customers and service providers. The platform was designed with a user-friendly GUI and a full management system running on a cloud server, with the aim of enhancing the delivery of campus services. BETArrive offers a novel platform to campus service delivery by enabling students to participate in the service provision process, and has the potential to promote greater efficiency and inclusivity in the delivery of campus services.

- Project repository: https://github.com/victor-cilay/BETArrive

4 **Blockchain Phishing Node Based on Machine Learning Recognition and knowledge map visualization software**

- Developed a system to assist users in avoiding phishing nodes and preventing blockchain fraud.
- This project involved the development of a machine learning model that was trained on existing transaction data, as well as the creation of a knowledge graph and visualization software. Through the implementation of these tools, the project was able to effectively prevent blockchain fraud by enabling users to identify and avoid phishing nodes.
- Designed the mechanism for message synchronization.
- Project repository: https://github.com/victor-cilay/Phishing-node-visualization

Extracurricular Activities

- Office Manager, BIT Student Union 11/2020-9/2021
- Manager, School Coffee House 03/2022-06/2023
- Several International Work&Communication Experience

HONORS & Awards

- **R**ank40/250+ in LSSEC TECH Program design competition 10/2021
- **Silver Medal** in the 8th China International "Internet +" College Students Innovation and Entrepreneurship Competition in Beijing Division Rematch Industry Proposition Track 09/2022
- **Third Prize** in the 18th "Challenge Cup" National Undergraduate curricular academic science and technology works by race known as the Chinese college students of academic science and technology "Olympic" event 04/2023
- Distinct student union officer

Skills & Interests

Languages:	Chinese (native), English (fluent)
Programming Languages:	C/C++, Python, Java, JavaScript
Operating Systems:	Linux, Windows
Machine Learning Toolchain:	Markdown, LaTeX, NeRFStudio, PyTorch
Hobbies:	Swim