Licheng Zheng

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Education

Shanghai University Sep 2021 – Jun 2025(Expected)
B.Eng in Artificial Intelligence Shanghai, China

- GPA 84.7/100
- Supervised by Shaorong Xie, dean of Computer Enginnering and Science.

Research Interest

My research interest lies in **Computer Vision** and **Robotics**, all of which I am happy to explore. I am especially interested in **3D-Scene Reconstrction** and **NeRF**.
I am always willing to learn more about the field of **Artificial Intelligence** and **Computer Science** with great enthusiasm.

Projects

Point-based Scene Warping for High-quality Neural Radiance Fields Jun 2023 – Now
Group Member of DISCOVER-lab, Institute for AI Industry Research, Tsinghua University Beijing, China

- **Overview**: Using Point-based method and design a warping function to minimize the holes in Neural Radiance Fields' rendering, and improve the overall quality of the whole 3D-reconstrction.
- **Content**:

Automatic descriptor acquisition method for NASICON electrolyte May 2022 – Mar 2023
Group Member, supervised by Prof Y. Liu in Shanghai University Shanghai, China

- **Overview**: Using the text mining method, descriptors can be extracted from small batch of NASICON solid electrolyte documents and trained based on this model to achieve automatic and efficient acquisition of NASICON solid electrolyte descriptors.
- **Content**: Using **Vue** to develop front-end interfaces and the back-end deployment using **Springboot** to communicate with **MySQL** and **Neo4j** databases. BERT algorithm are deployed using **Pytorch** for paper processing, and the extracted descriptors are used to construct the knowledge map using **Neo4j** database.

Computer Vision Recognition System for RoboMaster Robots Oct 2021 – Dec 2022
Leader of Computer Vision Group, SHU RoboMaster Team SRM Shanghai, China

- **Overview**: Through the video stream of industrial camera deployed on the robot, this project can identify enemy robots' armor plates, and publish the target coordinate information to lock the platform at the recognition center. Its performance is similar to a self-aiming plugin in First-person shooting games.
- **Content**: The Yolo network is deployed on **Ubuntu** using **CUDA**. Kalman filter and trajectory model are used to improve the impact point of the projectile and achieve accurate strike.

Awards and Honors

Scholarship for Innovation of Shanghai University Feb 2023

The 21st National Undergraduate Robot Competition (RoboMaster 2022) 3rd Prize, Aug 2022

The 35th Shanghai Youth Science and Technology Innovation Competition 1st Prize, Apr 2020

The 1st International Artificial Intelligence Fair(IAIF, SenseTime hosted) 1st Prize, Mar 2019

Shanghai Youth Robot Knowledge and Practice Competition 1st Prize, Nov 2018 and Nov 2019

Shanghai Youth AI Competition. 1st Prize, Nov 2018

Skill Set

Programming Languages:

- Familiar with **C++, Python, MATLAB, HTML, CSS, LaTeX.**
- Basic experience in **JavaScript, Vue, Java, SQL, bash.**

Tech Skills: C-Compiling methods, machine learning, deep learning, CUDA programming.
Tools: Hands-on experience in **Ubuntu** and **git** on daily basis.
English: 593 for the College English Test Band 4(CET4)
Interests: Photography, Programming, Classical Music.