Yutian Chen

Zhejiang University

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EDUCATION

- **B.Eng (Hons) in Robotics Engineering**   **2020-2024(expc.)**
  Chu Kochen Honors College, Zhejiang University
  College of Control Science and Engineering, Zhejiang University
  GPA: 3.97/4.0, 91.16/100
  Rank: 1/34
  CET-6: 582
  Technical Skills: Python with PyTorch, C/C++, Linux

HONORS

National Scholarship	December, 2021
National Scholarship	December, 2022
Outstanding Student Cadre	May, 2022
Scholarship for Excellence of Chu Kochen Honors College	October, 2022

PROJECTS

- **Project 1: 3D reconstruction and pose optimization**   demo   **09/2022-now**
  - Novelty: Propose a novel framework which uses monocular features supervision to improve multi-view 3D reconstruction and pose optimization quality under sparse viewpoints.
  - Contributions: I implemented the approach, conducted experiments and analyzed the results.
  - Results: Outperform the methods such as NeRF and DS-NeRF for 3D reconstruction under sparse viewpoints.

- **Project 2: 2D lidar mapping and localization**   **11/2022**
  - Used the ICP algorithm with 2D LiDAR data as the odometry and employed the EKF algorithm to fuse noisy GPS information and achieve point cloud mapping and localization.

CONTESTS

- **Engineering Training Integration Ability Competition**   demo   **First Prize**
  - Responsible for the design and control of the manipulator and the communication between the upper and lower computer.
  - Design and build a mobile cart to recognize and grasp objects.

- **China Undergraduate Mathematical Contest in Modelling**   **First Prize of Zhejiang Province**
  - Responsible for the design of optimization algorithms.
  - Established a kinematic model of the wave energy harvesting device and found the maximum value of the average power using Fourier series and genetic algorithm.

- **Mathematical Contest In Modeling**   **Finalist**
  - Responsible for modelling and coding.
  - Established a power profile model and an optimizing model to provide a cyclist with the best strategy to win a time trial race using nonlinear optimization.