YI LUO

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Research Interests

SLAM, VIO, Computer Vision

EDUCATION

BA Nuclear Engineering **Southeast University** **August 2016 to June 2020**

AWARDS

The 18th National College Student Robot Competition **April 2019 to August 2019**
Third Prize, ROBOMASTER Finals
First Prize, Appearance Design, ROBOMASTER Southern Division

The 17th National College Student Robot Competition **April 2018 to August 2018**
Third Prize, ROBOMASTER Finals
Second Prize, Central Division

RESEARCH EXPERIENCE

Research Assistant **Northeast University** **April 2022 to Aug 2023**

- Partially led 2 million RMB funding from Bright Dream Robotics Co., Ltd. for intelligent wall brick detection and localization for robots
- Laboratory deep learning server operation and maintenance, remote maintenance-free access service
- Monocular 3D object detection, estimating depth through logarithmic space, to achieve more accurate generation of 3D object bounding boxes by 2D object detectors
- Deblurring and super-resolution of event cameras by estimating actual integration time via deep learning

Computer Vision Engineer **Nanjing KUYEE Co., Ltd.** **August 2020 to March 2022**

- Object detection network Yolov5 with dense connection module in PyTorch framework, optimizing and deploying models using TensorRT technology on an embedded GPU device (Jetson NX) in real-time
- Implemented tracking algorithms such as the Kalman filter algorithm, SORT algorithm and DeepSort algorithm
- Modeled a multi-body dynamics system with controllers on a tilting dual-fan UAV

Research Assistant **Southeast University** **August 2019 to March 2020**

- Created a drone-based face detection dataset
- Developed UAV navigation with an A* route-planning algorithm
- Coded a ground station program to control a DJI UAV on a mobile phone
- Detected balloons with a DJI UAV using feature extraction and template-matching methodology

Chairman **Drone Association, SEU** **March 2017 to August 2019**

- Detected light features on armor plate using OpenCV SIFT algorithm with Nvidia TX2
- Designed and developed drone control program using Ubuntu/ROS platform
- Involved in the development of various mobile and desktop applications using C, C++, Python, Java, Makefile, and CMake