

Shenghao Li

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Educational Background

2017.09-2020.06	ECUST(211,985 Platform)	Mechanical Engineering(Deep Slam)	Master degree
2013.09-2017.06	ECUST(211,985 Platform)	Mechanical Engineering & English	Bachelor degree

Project Experience

2018.07-2019.06 ROS based Artificial intelligence omnidirectional mobile platform Software engineer

- Simultaneous Localization and Mapping with LIDAR, IMU and odometry fusion algorithm;
- RGB-D camera based Visual Slam and navigation on a mecanum-wheel omnidirectional mobile platform;
- Computer Vision based object tracking system on the omnidirectional mobile platform;
- SSD based object detection and face recognition system with localization in the slam map;

2018.04-today Visual SLAM system with deep learning based feature Project Leader

- Build end-to-end CNN to extract robust keypoints and descriptors;
- Optimize Visual SLAM system with learned feature points.

2018.06-2019.02 Computer vision based shipping container ID detection system Project Leader

- Computer vision data mining and training dataset generation;
- Container ID code localization with a fully convolutional text detector and recognition with a recurrent convolutional neural network.

2018.09-today Computer vision based container foreign object detection system Project Leader

- Container localization in videos and background subtraction;
- Convolutional neural network based foreign object (locks) detection.

Internship

2019.07-today QualComm(Shanghai) AI Engineer (CE)

- Deep Learning Network Quantization with Tensorflow/Pytorch, SNPE Algorithm Optimization, Data Free Quantization Implementation and state-of-art paper reading;
- Customer Engineering data processing and NLP text analysis process to improve CE efficiency;

2016.10-2019.06 OceanBotech Part-time Engineer

- V-Slam, object tracking, object detection and navigation algorithms for a ROS based artificial intelligence omnidirectional mobile platform;
- Nvidia Jetson platform development, Cuda & Opencv Programming;
- Development of ROV motion control system with a Fuzzy-Genetic algorithm;
- Artificial intelligence course with Python at XuHui Middle School.

Paper

**AIM 2019 Automatic Container Code Localization and Recognition via an IEEE Conference
Efficient Code Detector and Sequence Recognition**

Prize

- **Academic:** Academic Scholarship (3); Honorary Student (2); Outstanding Graduate;
- **Practice:** Shanghai University Creative Robot Challenge Competition (second prize); Ship Model Design Competition (Second Prize)

Personal Skill

- Python programming: Familiar with Pytorch, Tensorflow, Keras, OpenCV and deep learning;
- C/C++ programming: Familiar with ROS robot programming system, Visual Slam (ORB-SLAM) and Geometry;
- Linux Operation System: Familiar with Ubuntu system, Bash and Regular Expression;
- English CET-6 572; Primary German;