EDUCATION

2015.9-2019.6 **Guangdong University of Technology**

Measurement and control technology and instruments

PROJECT EXPERIENCE

2020.5-2020.10

- □ Responsible for the use of the AI camera in conjunction with the company's RCU kit, and use the serial port communication to transmit the camera data to the chassis driver.
- □ Responsible for the design and implementation of scene planning, such as the simulation of driver's license test subject 2, the simulation of smart city unmanned driving, etc., and realize the camera function.
- □ Responsibility uses a variety of methods to realize road recognition and traffic sign recognition, and deploys methods such as training the site model or calculating road coordinates.
- □ Responsible for cutting photos and processing xml files during traffic sign training, using tensorflow for model training, and converting tflite multiple times Implement the model required by the AI camera.

2019.3-2020.2

- Responsible for participating in the overall scheme research of ROS system, and building the overall framework of ROS-based robot modeling, control, simulation, testing, analysis and evaluation.
- Responsible for the data collection, deployment and processing of various sensors under the ROS system.
- Responsible for the positioning and navigation of robots in the real environment, object recognition, voice recognition, following, obstacle avoidance and other debugging.
- Responsible for ROS course writing, program innovation, program testing and verification, and the deployment of the whole course system.
- Responsible for using pyqt5 to encapsulate the program modularly, which is more convenient for the writing of introductory course content.

2018.6-2018.12 **Guangzhou Bowen Robot Technology Co., Ltd**

ROS Software Development Engineer (Intern)

- Responsible for the integration and code testing of mobile robots and robotic arms based on ROS system, and complete the testing of

Huaye Zhan

INFORMATION

25 years old

4 Years' Experience

+86 15626185165

czxfzhy@gmail.com

sensor driver nodes and open source software function packages.
- The body pose estimation project is deployed to the robot to study multi-person real-time target detection and single-person 3D human skeleton pose estimation detection.
- Responsible for tracking and researching cutting-edge research trends of top international conferences such as ROBIO, ICRA and IROS, and in-depth study of target detection and attitude estimation

2018.3-2018.5

- Responsible for analyzing, testing, and applying deep learning and machine learning algorithms.
- Responsible for comparing the latest cutting-edge algorithms for human pose estimation, and implementing relevant detection through OpenCV and tensorflow deep learning frameworks.
- Responsible for studying the detection of partial affinity domains (PAFs) and deploying bottom-up algorithms

WORK EXPERIENCE

2019.3-present **Zhongming Robot**

Software Engineer (Artificial Intelligence)

- Responsible for ROS course integration and development, course content editing, package application configuration, debugging parameters, etc.
- Responsible for deploying ROS environment and communicating with arduino serial port in ubuntu, assembling hardware sensors such as laser Lidar camera and touch infrared ranging, and building Zhongming education system based on ROS
- Responsible for the deployment of SLAM robots for path planning such as gmapping, the application of ROS machine vision and voice modules, and the use of pyqt5 packaging modular projects
- Responsible for the development of AI cameras based on K210, the collection and training of datasets, the improvement of the accuracy of recognition effects, and the deployment of road recognition and traffic sign recognition, face detection and recognition, color recognition, visual line patrol, object recognition and other projects.

Communication Problem Solving

SUMMARY

- Proficient in Linux development environment, proficient in using makefile and cmake for project management, familiar with git version control.
- Familiar with ROS robot operating system, understand path planning, SLAM, robotic arm, etc.
- I have a certain theoretical foundation of deep learning, and has studied attitude estimation, object detection and other projects.

- Familiar with python development language, familiar with pyqt5, familiar with deep learning framework TensorFlow, OpenCV, etc.
- Familiar with the principle of robot serial port communication and understand the role of sensors.
- Learn the steps to train a model and learn tips on training a model.
- Understand mainstream deep learning algorithms such as CNN, RCNN, FRCN, etc., and have basic practical use and debugging skills.
- Proficient in listening, speaking, reading and writing in English, and have good thesis reading skills.