Zining Wang

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EDUCATION

Northeastern University Sep 2024 – Present
- MS in Electrical and Computer Engineering and PhD in Computer Engineering
- Advisor: Prof. Xuan Zhang

University of Michigan - Shanghai Jiao Tong University Joint Institute Sep 2020 – Aug 2024
- Bachelor of Engineering in Electrical and Computer Engineering
- Minor in Computer Science and Data Science

University of Wisconsin - Madison Jan 2023 – May 2023
- Exchange Student

RESEARCH EXPERIENCES

Emerging Computing Technology Laboratory May 2023 - Dec 2023
- Assisted in developing High-Level Synthesis software to compile C and C++ to Verilog based on Clang, developed scripts to collect data, and optimized some operations by detailed chaining
- Assisted with research on Approximate High-Level Synthesis, reproduced algorithms in papers, and compared their performance

Dynamic Scheduling and Simulation of Automated Guided Vehicle System Oct 2020 - Oct 2021
- Summarized the latest AGV-related technologies in the logistics industry
- Innovated the multi-task allocation algorithm of the AGV system, path planning algorithm based on the Dijkstra algorithm and time window algorithm, traffic jam and avoidance prevention and processing algorithm to improve the robustness and effectiveness of the AGV system
- Designed a unique user interface to reduce the difficulty of operation

PROJECTS

Car Detection System on Bicycles Sep 2023 - Dec 2023
- Introduced an embedded system to realize car detection, safety distance detection, low latency performance, and safety index measurement and feedback
- Used Binocular Camera, Gyroscope Sensor, and Audio Alerting Device as the main components of the system
- Optimized existing model and algorithm to balance detection quality and performance on Raspberry Pi
- Got Silver Award in Winter Expo as Capstone Design

Sensor Fusion of LiDAR and Camera Sep 2021 - Aug 2022
- Worked as a member in the Computer Vision department and was responsible for LiDAR
- Used a Yolo model to detect robots and identify friends or foe
- Used LiDAR to scan the whole area
- Calculated the location of each robot by data from LiDAR and cameras
- Won the First Prize in the RoboMaster Robotics Competition (Sponsored by DJI)

AWARDS

Undergraduate Excellent Scholarship Dec 2023
Silver Award in Capstone Design Dec 2023
First Prize, the RoboMaster Robotics Competition Aug 2022
First Prize, National Olympiad in Informatics in Provinces Nov 2018

SKILLS

Computer: Linux (daily use since 2021), C/C++, Python, Rust
Language: Chinese (Native), English (Proficient)