JIAQIAO ZHANG

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EDUCATION

Stanford University, United States *MSME in Robotics GPA 3.9/4.0*

RMIT university (Joint Program), Australia Bachelor of Mechanical Engineering GPA 4.0/4.0

ShanDong university, China

Bachelor of Mechanical Engineering GPA 90/100

EXPERIENCE

AMT (Shanghai Qiyuan Technology Co., Ltd.), GuangZhou

Software Engineer intern — Technical Support Department

- Participate in the development and maintenance of the Intellectual Property Management System developed for Power Construction Corporation of China, mainly in charge of web development and maintenance.

- Technical keywords: JavaScript, CSS, React, Node.js

COURSES AND SKILLS

Data Structure (C++); **Object Oriented Programming** (JAVA, Android Studio); **Web Applications** (JavaScript, HTML, CSS, React, Node.js); **Principles of Robot Autonomy I** (ROS, EKF SLAM, A*); **Principles of Robot Autonomy II** (Tensor Flow, RL, ML, Python);

PROJECTS (ALL AVAILABLE IN GITHUB)

Photo Sharing App (Full stack Web Application)

- Implement a full stack photo sharing web application where user can register account, post photos, check other users' photos and post comments. Like a web version of Instagram. Using React.js for front-end view, Express.js for controller, and MongoDB for data storage system.

- Techincal keywords: JavaScript, Node.js, React, HTML, CSS, MongoDB

Autonomous Food Delivery Turtlebot

Using SLAM to detect and explore the 3D model environment and store the map and food position. Autonomously deliver the food to the given position, mainly in charge of the motion planning, EKF SLAM and shortest path algorithm.
EKF SLAM was used for map exploration and localization. A* method is used for motion planning. The Tensorflow Model (neural network model) is used for perception (food recognition and Stop sign detection).

- Technical keywords: ROS, EKF SLAM, CNN, A*, python, Tensor Flow

Tetris Game (CS108 course project)

- Implement a Tetris Game which has user interface developed in Android Studio. The game has user mode and auto mode. User mode allows user to play, control the speed and obtain score. Auto mode which is played by the brain logic computes the potential score and make basic judgement about where to place the piece.

- Technical keywords: Java, XML, Android Studio

Automatic tracking and obstacle avoiding vehicle

- Designed both the hardware and software for an intelligent vehicle with capabilities including remote control, camerabased route recognition, and automatic obstacle detection

- Mainly in charge of the camera-based route recognition, using C language to program MCU. And the obstacle detection using Ultrasonic ranging module.

- Technical keywords: C, Arduino, Line-following algorithm.

AWARD

- the Robert W. Dorrat Memorial Prize,(RMIT)

Sept 2019 - June 2021 (expected)

July 2017 - June 2019

Sept 2015 - June 2017

Dec 2018- Feb 2019

⁻ The Institution of Mechanical Engineers Frederic Barnes Waldron Best Student Award