YITONG WANG

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Interests: *1. Robotics 2. Interaction 3. AI and CV*

EDUCATION

South China University of Technology (SCUT)　　　　　　　　　　　　　Guangzhou, China
Bachelor of Engineering in Process Equipment and Control Engineering, minor in Computer Science
GPA: 3.15/4.0 or 81/100 (and more than 3.7/4.0 in the last 2 years)　　　　　2018/09-Present
Main Coursework: *C++ Programming, Data Structures, Computer Network and Application, Automatic Control Theories, Fundamentals of Mechanical Design, Integral Transformer, Database Technology and Application, Operating System, Microcomputer Interface, Computer Security, Computational Methods.*

EXCHANGE EXPERIENCE

National University of Singapore SoC 2022 Summer Workshop　　　　　2022/05-2022/07
Cluster: *AI & FINTECH – Embedded System and Deep learning, Deep Learning focused*
Project Theme: Intelligent Plant Incubator　　　　Advisor: Colin TAN Keng Yan　　　　Grades: A
Imperial College London ' Robotics, AI and IoT '　　　　　　　　　　　2021/01-2021/02
Grades: 95/100 (Distinction) and ***Best Project Award***
Project Theme: *Fire Inspection Robot Simulation*

AWARDS

1st Prize in RoboMaster Championship	*National*,08/2021
3rd Prize in Competition of **ICRA2021 (AI Challenge)**	*International*,06/2021
University Scholarship by SCUT (top 25%)	*Intra-School*,12/2020
Merit Student of SCUT	*Intra-School*,12/2020
1st Prize in RoboCon Quadruped Robot Simulation Competition	*National*,05/2020
2nd Prize in 32th Chinese Physics Olympiad	*National*,09/2017
3rd Prize in 31th Chinese Physics Olympiad	*National*,09/2016

JOB EXPERINCE

Engine Plant of Dongfeng Commercial Vehicle Co.,Ltd　　　　　　　　08/2021-08/2021
Internship in Processing　　Inspect the working conditions of product line and heat treatment
Botai Robot(Shunde distrct, Foshan) Technology Co.,Ltd　　　　　　　01/2021-02/2021
Internship in Robot Algorithm Design　　Lidar-Slam Algorithm Development for Mobile Robots

SELECTED PROJECT EXPERIENCE

Intelligent Plant Incubator　　　　　　　　　　　　　　　　　　　07/2022-07/2022
Deep learning Algorithm and Interface Developer
➢　Using Inception v3 to classify the health condition of leaves and collect dataset.
➢　Make posters and promotional videos for our project (find more on my website)

Undergraduate Graduation Project　　　　　　　　　　　　　　　　01/2022-06/2022
Solo Developer
Theme: ***Research on Cruise Inspection of Industrial Process by Autonomous Robots***
➢　Navigation Algorithm by Deep Deterministic Policy Gradient (DDPG) Algorithm
➢　Defect detection of production equipment and products based on Faster R-CNN, the network structure is improved to raise the recognition efficiency with accuracy up to 97.5%

Task collaboration under dual-robot rules based on reinforcement learning   08/2020-06/2021
Project Leader & Perception Algorithm/Strategy Framework Developer
➢ Robot Perception System Based on Lidar and Binocular Camera, using OpenVino speed up YOLO/OpenCV inference and reduce reasoning time by 30%
➢ Key Action Node Selection by a Behavior Tree Framework with assist under Reinforcement Learning.
➢ Developed a general SLAM algorithm for mobile robot for the laboratory which improve the accuracy of the location and navigation in the case of low sensor accuracy.

National Undergraduate Training Program for Innovation and Entrepreneurship   06/2020-05/2021
Theme: *Research on the sharing of Medical Data in the Guangdong-Hong Kong-Macao Greater Bay Area Based on Blockchain and Big Data Technology*
Project Leader & Model Developer   ※Funded by the Ministry of Education of the PRC.
➢ Build dynamic mathematical models of infectious disease development, adding the influence of government intervention and medical care to traditional models. Use crawlers and NLP to analyze the sensitivity of the masses on social media to infectious diseases as a reference.
➢ Apply for funding and project approval as project leader.

SRP Project   11/2019-05/2020
Participator & Control Algorithm Developer   ※Funded by South China University of Technology
Theme: **Research on the Structure and Algorithm of Bionic Quadruped Robot**
➢ Design the leg structure of the robot dog by simulating the human skeleton with Fushion360 and study its control algorithm based MPC.

Database Course Project   2019
Solo Developer
➢ Designed a web forum to share course-related content and reviews and build with MySQL and Django

EXTRACURRICULAR ACTIVITIES

Project Group Leader of Robot Competition Team at SCUT	2020/10-2021/10
Head of the quadruped robot entrepreneurial team	2019/12-2021/09
Director of the Media Center in Student Union of SCUT	2018/09-2020/05
Press Corps Photographer of SCUT	2019/01-2019/02

TECHNICAL SKILLS AND OTHERS

Framework and Software：
    Proficient in *Tensorflow, ROS, OpenCV, Solidworks, LaTeX, Microsoft Office and varies Adobe software*
Programming:
    C++, Python (expert); *HTML and JavaScript (*a little*)*
Language:
    Chinese (Native), English
Hobbies:
    Photography and Basketball