HUANG Jiacheng

Academic Homepage: jiachenghuang.com **Github:** github.com/Kanomace
E-mail: jiacheng.huang@ieee.org **Tel:** (+86) 19859090061

EDUCATION

Fuzhou University, National University of Ireland Maynooth (Sino-Foreign Joint Training Mode) 09/2021-06/2025
Bachelor of Engineering (Expected) in **Electronic Information Engineering**
GPA: 3.698/4.0

ACADEMIC PAPERS

LEET: Stock Market Forecast with Long-Term Emotional Change Enhanced Temporal Model 08/03/2024
Second Author
Included by PeerJ Computer Science

Research and Design of Unicycle Robot Based on Cascade PID Control 08/11/2023
First Author
Included by 2023 2nd International Conference on Mechatronic Engineering and Artificial Intelligence (MEAI 2023)

Research on Automatic Pricing and Replenishment Decision of Vegetable Commodities Based on Penalty Function LSTM Model 19/09/2023
First Author
Included by 2023 International Conference on Information Engineering, Electronics and Communication Technology (IEECT 2023)

RESEARCH & PROJECTS

Development of a Self-balancing One-wheeled Robot Based on Visual Inspection 06/2023-06/2024
National Undergraduate Innovation and Entrepreneurship Training Programme
Supervisor: Prof. Wang Wu, Fuzhou University

- Developed a one-wheeled robot capable of adapting to complex terrain and conducting visual inspections in realistic industrial production environments;
- Utilised Altium Designer for circuit design, conducted dynamic modelling of the one-wheeled robot, and developed machine vision in the field of robotics;
- Successfully developed a prototype, resulting in one international conference paper, with an expected publication of one journal paper and a software copyright.

Intelligent Detection and Monitoring System for Underwater Fish 06/2023-06/2024
Provincial Undergraduate Innovation and Entrepreneurship Training Programme
Supervisor: Prof. Chen Weiling, Fuzhou University

- Elevated the application of the YOLO object detection algorithm in the field of underwater biology and visualized the analysis of detection data;
- Established a client cloud platform and a mini-program app to analyse and provide real-time querying of detection information visually;
- Completed the final project completion report, expecting to produce one international conference paper.

Application of Microcontrollers to the Design of Intelligent Bodies and Digital Manufacturing such as 3D Printing 05/2023-07/2023
Supervisor: Micheal, Princeton University

- Explored the analysis of the PD controller-based DC motor control model in the field of 3D Printing and conducted research on its applications;
- Analysed the micro-electromechanical systems of digital control circuits using Falstad and Tinkercad based on mechanical automation feedback;
- Completed a synthesis report with a final grade of B and received a recommendation letter from the supervisor.

INTERNSHIP EXPERIENCES

Xiamen Fanshi Intelligent Technology Co., Ltd. 01/09/2023-01/06/2024
Embedded Software Engineer
Project: Development of an Indoor Positioning Miniature UAV for Industrial Site Inspection

- Developed a miniature UAV capable of indoor positioning to automate inspections in industrial settings;
- Tested UAV hardware circuit boards, implemented Mavlink UAV communication, developed indoor inspection algorithms, and designed upper computer software systems;
- Showcased the designed product in Fuzhou Innovation Park.

Imperial Vision Technology/Power System and Equipment Industry Research Institute, Fuzhou University National Science Park 25/05/2023-25/02/2024
Radar Algorithm Engineer/Research Assistant

- Based on the situations at the power distribution station, using mmWave radar evaluation boards to realise the determination of

personnel posture and trajectory tracking;

- Implemented real-time data collection using TI's mmWave radar, developed deep learning algorithms and achieved human pose classification;
- Presented the system in the China Postgraduate Electronic Design Contest, planning to publish one journal paper.

Fujian Qipu Xinchuang Technology Co., Ltd. 23/07/2023-30/08/2023

Embedded Engineer

Project: Development of an Intelligent Mining Ventilation Door Control System

- Addressed the challenge of remote ventilation door control in mining environments by designing a fast door motor communication control system using ESP32;
- Designed communication circuit boards using Altium Designer, customized MQTT communication protocols, and developed software application systems;
- Applied the designed product in industrial production, with plans to apply for one patent.

AWARDS & HONOURS

Comprehensive Third Class Scholarship, Fuzhou University (two times)	03/2023 & 03/2024
First Prize and Best Technical Innovation Award, 13th Cross-Strait Information Service Innovation Contest and 17th Fujian Computer Software Design Contest	12/2023
International Bronze Award (International Track), 9th China College Students' 'Internet+' Innovation and Entrepreneurship Competition	11/2023
National Second Prize (Top 10%) in the Internet of Things Track, 9th 3S Cup College Students Internet of Things Technology and Application Innovation Competition	08/2023
Third Prize in Fujian Division (Control Type), 16th National Undergraduate Electronic Design Contest	08/2023
Individual Third Class Scholarship, Fuzhou University	12/2022
Comprehensive Second Class Scholarship, Fuzhou University	03/2022

LANGUAGE & SKILLS

IELTS: 6.0 (L: 5.5 /R: 6.0 /W: 6.0 /S: 5.5)	03/2024
CET 4: 541	06/2021

IT Skills: Visual Studio Code, Altium Designer, PyCharm

Hobbies and Specialists: Table Tennis, Electronic Design