JINGHAO ZHENG

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🎓 EDUCATION

Shanghai Jiao Tong University (SJTU), Shanghai, China　　　　Sept. 2021 – Jun. 2025(expected)

B.E. in Automation(Computer Science and Engineering), Minor in Finance

- Major GPA:3.81/4.3
- Centesimal grade average:89.12/100

Core Courses: Calculus II(98), Probability and Statistics(99), Linear Algebra(92), Discrete Mathematics(93), Data Structure(90), Pattern Recognition(96), Principles of Automatic Control(A)(94), Robotics(93)

👥 REASERCH EXPERIENCE

Design of distributed collaborative positioning system *Member*　　　　　　Oct. 2023 – Mar.2024

Advisor: **Jianping He,** Associate Professor, Department of Automation, Shanghai Jiao Tong University

Brief introduction: Multiple fixed position cameras are used to determine the specific location of the moving car in the field.

- Implemented control code for motors in the camera head on STM32 board, responsible for controlling the yaw and the pitch of the platform to achieve the accurate angle.
- Completed partial mechanical design and build of the camera head and design of circuit board.

Implementation and comparison of gas tracing algorithms for dual robots in confined space

Leader　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　Mar. 2023 – Feb.2024

Advisor: **Liufang Wang,** Senior engineer, Student Innovation Center, Shanghai Jiao Tong University

Brief introduction: The project aimed to trace gas leaks efficiently using robotic systems in constrained environments.

- Preliminary investigation and simulation verification of gas tracing algorithms.
- Developed code for Raspberry PI to control the wheel motors of the robotic car, ensuring precise movement in the confined space.
- Implemented communication protocols between the robotic car and the upper computer with ROS2, facilitating real-time data exchange.
- Wrote the project paper detailing the algorithm design, implementation, and experimental findings.

⚙ SKILLS

- Programming Languages: Python, C/C++, ROS2, Matlab, Markdown, LaTex
- Platform: Linux
- Software: Office, SOLIDWORKS, Origin, Ansys, Keil v5, STM32CubeMX, Arduino
- Languages: Chinese(native), English(fluent)

♡ HONORS AND AWARDS

3rd *Prize*, TI Cup National Undergraduate Electronic Design Contest Shanghai area	Aug. 2023
3rd *Prize*, Academic Scholarship of Shanghai Jiao Tong University	2023
3rd *Prize*, Academic Scholarship of Shanghai Jiao Tong University	2022