

# You Yuchen



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whoami-wesleyyou.top



WesleyYou

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## EDUCATION

**University of Michigan**, Michigan, China

expected graduation: May 2026

Bachelor of Computer Science

**Shanghai Jiaotong University**, Shanghai, China

**expected graduation:** Jun. 2026

Bachelor of Mechanical Engineering

Core GPA 3.9/4.0

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## RESEARCH

### LLM-based Robotic Arms Natural Language Task Handling [\[repo\]](#)

Advisor: Yutong Ban [\[link\]](#)

Shanghai Jiao Tong University

**Objectives:** Use the LLM and the Flexiv 7 DOF Robot Arm with ZED Depth Camera to handle natural language input and solve daily tasks like solve the jigsaw puzzles.

**Contribution:** Lead the robotic arm control part, basing on the Flexiv-RDK frame, use the reverse/forward kinematic solution to make fluent control of the 7 DOF manipulator to handle accurate motion.

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## SELECTED PROJECTS

### Auto Sentry Robot Control [\[repo\]](#)

*Chinese University National Robot Competition-Robomaster Championship*

- **Objectives:** Auto navigation and decision-making sentry robot with double gimbal and 4 dial wheel chassis beating enemy robots base on the STM32-F407 board.
- **Contributions:** Lead the circuit design of the auto sentry robot; Lead the control algorithm of the double gimbal and fast-fluent response of the four dial wheel chassis; Lead the design of the CAN/ UART communication with CV process and laser radar; Lead the IMU-based absolute pose control.

### CNN-based Medical CT Image Diagnosis and COVID Detect [\[repo\]](#)

- **Objectives:** use the dataset of abundant CT images of the covid and non-covid cases to help train models that can recognize the new CT images to decide whether covid.
- **Contribution:** Transform images to tensors and normalize them; Use Unet model to better train my personal model; Save the trained one and evaluate it with the test datasets.

### Web Game: Come On Lei [\[repo\]](#) [\[product\]](#)

*ENGR 1000J Software Engineering Term Project*

- **Objectives:** design a web parkour game which features the ninja style
- **Contributions:** design the mechanics of the game and design all the user interface and fluent animation of the game.

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## SELECTED HONORS & AWARDS

- 2024 Cheng-Family Scholarship June 2024
- 23rd National College Robot Competition·RMUC Eastern Region Champion May 2024
- 23rd National College Robot Competition·RMUL champion April 2024
- 2023 Shanghai Jiao Tong University scholarship level B December 2023

- 2023 University Physics Competition Silver Medal November 2023
- 2023 Wu Jiong Sun Jie Sunshine Scholarship November 2023
- 22nd National College Robot Competition·RMUC National Champion August 2023
- SJTU Social Practice Third Prize August 2023

### EXTRACURRICULAR ACTIVITIES

**Yunhan Jiaolong Robot Club**, Shanghai *Electric Control Department member, Sept. 2022 - Now*

- Lead the electric control part (coding, circuit designing, controlling, building physical models) of the Auto Sentry robot, which won MVP in the competition many times
- Help organize the “Yunhan Cup” SJTU robot on-campus competition

### SKILLS & CERTIFICATIONS

- TOEFL grade 103 / 120 2023/4/28
- Programming Languages: C++, C, Python, MATLAB, Git, LaTeX, Elm, HTML, shell, etc.
- Frameworks: PyTorch, FreeRTOS, OpenCV, Flexiv\_C++, Django
- Deep Learning: CNN, GAN, RNN, etc

### TEACHING EXPERIENCE

*Shanghai Jiao Tong University* Shanghai, China

- SU. 2024 ENGR1000J (Introduction to Soft Engineering), Teaching Assistant

### SELECTED COMMUNITY SERVICE

*UM-SJTU Joint Institute Youth Volunteer Team* Sept. 2022 – Sept. 2023

- Co-Planner of the Yunan Support teaching activities Shanghai, China

*UM-SJTU Joint Institute Business Division* Sept. 2022 – Sept. 2023

- Co-author of UM-SJTU JI Student handbook.
- Administrator of the JI Business Piazza Website

*Old Friends Youth Team, Shanghai* June 2023 – September 2023

- Participate in communication activities between young and elderly friends