Zhu Wenbo

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<u>GitHub</u> | <u>LinkdeIn</u>

EDUCATION

National University of Singapore

2024/7 - 2028/7

Bachelor of Engineering (Computer Engineering)

- Current CGPA: 4.91/5.00
- Relevant Coursework Electrical Engineering: Principles and Practice, Programming Methodology in C & Java, Engineering Calculus, Differential Equations

Nanyang Technological University, Singapore

2023/7 - 2024/7

Bachelor of Engineering (Computer Engineering)

- Current CGPA: 4.71/5.00
- Relevant Coursework High-Performance Computing, Digital Logic, Computer Organization & Architecture, Data Structures and Algorithms in C, Data Science & Artificial Intelligence in Python

ACADEMIC PROJECT

Research at Fudan University

2024/7 - 2024/8

AR-Enhanced Robot Control Using MRTK and HoloLens

• Designed and implemented an immersive AR robot control interface in Unity using Microsoft's MRTK for HoloLens, featuring a real-time joystick panel and multiple hand interaction modes. Built a secure, cross-platform communication system with Java (Netty) and C# (Unity) using Google Protobuf, and integrated Lailu's robot control API. Optimized latency by profiling coroutines and exploring event-driven alternatives for improved responsiveness.

FIRST Robotics Competition

2022/1 - 2022/12

Project Title: 2022 RapidReact Robotics Project

• Wrote the whole code for Team6940's 2022 robot in Java. Developed the set of Swerve code for the first time. Came up with three sets of shooting while moving algorithms and an easy-to-use autonomous program structure for swerve drive.

Shanghai Jiao Tong University

2021/6 - 2021/12

Project Title: Cybersecurity project

• Developed an e-voting system based on Blockchain technology by Python.

LEADERSHIP EXPERIENCE

Google Developer Student Club

2023/10 - 2024/10

Tech Lead (Robotics)

FIRST Robotics Competition Team 6940

2020/9 - 2022/9

Program & Software Lead

NTU High-Performance Computing Club

2024/1 - 2025/1

Team member

HONOURS

- **Dean's List Award** in the 2022 FIRST Robotics Competition.
- The **Outstanding Student** of 2021 in the Cyberspace Security Workstation of Shanghai Jiao Tong University.

OPEN-SOURCE CONTRIBUTIONS

- 2022RapidReact Wrote Team 6940's 2022 FRC robot code.
- <u>ThinkpadX390-Opencore-EFI</u> (1.8k downloads) Built boot files that allow ThinkpadX390 users to run macOS 12.0+ smoothly on their Non-Apple laptops.
- <u>ThinkpadE40-Clover-EFI</u> Built boot files that first allow macOS 10.14+ to be run on old computers with MBR partition.
- <u>Logseq-cusgit-theme</u> (11k+ downloads) Developed a clean, GitHub style theme for Logseq, focusing on bullet journal and long-time writing experience.
- <u>6940Swerve-docs</u> Built a multilingual whitepaper site aiming to help more FIRST Robotics teams become experts at swerve. Used Transifex and GitHub workflow to update translations automatically.

SKILLS

Programming Languages: Python, C, Java, Verilog HDL, Vim, Markdown, Linux CLI, LaTeX, C# **Tech Skills:** ROS, FIRST Robotics Programming, Robotics Control Algorithm, 3D Modeling with CAD Tools, Arduino, Unity, Linux, Windows and macOS

Languages: Native in Chinese, proficient in English, and basic proficiency in French (A2 Level)