

# JING YANG

LinkedIn: jing-mobius-yang  
Website: www.mobius-yj.me

Mobile: +39-334-9122-161 / +86-178-2802-2197  
Email: mobius10140@gmail.com

## Education

- **European Institute of Innovation and Technology, digital** European Union  
*Joint Double-degrees Master Program - Embedded Systems;* Sep. 2024 - Jun. 2026
- **KTH Royal Institute of Technology** Stockholm, Sweden  
*Master of Science - Embedded Systems;* Sep. 2025 - Jun. 2026
- **University of Bologna** Bologna, Italy  
*Master of Science - Computer Science and Engineering;* Sep. 2024 - Jul. 2025  
*Courses: Distributed Systems, Machine Learning and Deep Learning, Intelligent Systems Engineering*
- **Southeast University** Nanjing, China  
*Bachelor of Engineering - Information Engineering;* Sep. 2020 - Jun. 2024  
*Courses: Digital Communications, Digital signal Processing, Artificial Intelligence and Deep Learning, Digital Circuit and Systems*

## Skills

- **Coding:** Python, C, C++, Matlab, Java, JavaScript, Verilog, HTML
- **Hardware Skills:** Vehicular Systems, Hardware testing, Circuit design, Verification, PCB layout, AI deployment
- **Platforms:** Linux, Windows, Arduino, Raspberry, STM32, ESP32, Xilinx, FreeRTOS, FPGA
- **Languages:** Mandarin(Native); English(C1)

## Professional Experience

- **Tesla, Inc.** Shanghai, China  
*Electrical test Intern(HV Battery), R&D* Mar. 2024 - Sep. 2024
  - **Product Validation:** High-voltage battery module and pack-level reliability test and validation, including vibration test, impact test, thermal test, environmental test like HTHE and PTCE.
  - **Test Development:** Development of automated testing and data analysis using Python. Responsible for designing an autonomous control system with GUI for the Drop Rig bench.
  - **Result Analysis:** Developed an app for vibration data analysis based on Matlab and designed an internal website for recording experimental data and reliability analysis.
- **NIO Inc.** Shanghai, China  
*Power Engineer Intern, R&D* Oct. 2023 - Feb. 2024
  - **Low voltage power management:** Participated in the development of low-voltage power management systems for electric vehicles, focusing on the integration and optimization of power distribution components.
  - **Automated Testing:** Conducted testing and validation modules, developed automation testing software and platform by Python to enhance accuracy and efficiency.
  - **ECU fuinction Validation:** Responsible for Efuse function test and calibration test on latest NT3 car.
- **Chengdu Zhimingda Electronics Co., Ltd.** Chengdu, China  
*Embedded Firmware Engineer Intern, R&D* Jul. 2023 - Sep. 2023
  - **SPI Driver Development:** Designed SPI driver module using Verilog; optimized data exchange with FIFOs.
  - **Advanced Data Transmission:** Developed AD7656 transmission modules; employed time-division and multiplexing.

## Projects

- **MindRoll: Distributed Multiplayer Dice Game:** Led core logic and system integration in a turn-based dice game using Python and Pygame. Implemented custom RPC, turn synchronization, and fault-tolerant reconnection. Tech: Python, Pygame, RPC, JSON, TCP. (2025)
- **CPU Design Using Vivado (Digital System Course Design):** Constructed a 32-bit CPU. Programmed instruction set and internal registers in Verilog, implemented arithmetic operations on Xilinx board. Tech: Verilog, Digital IC disgn. (2024)
- **Research on the Sweeping Robot based on Optical Positioning Technology (Chinese National Training Program of Innovation):** Created new optical positioning modules and PCBs to apply, developed an open-source robot for autonomous navigation based on positioning method. Tech: Matlab, Arduino, Analog IC design, PCB layout, AOA. (2023)
- **Multi-Directional Planar Robot with Edge AI Voice Control (National IoT Contest):** Designed a robot with intelligent voice control using Espressif ESP32 Kit, applied the built-in Rainmaker Cloud. Won provincial and national awards. Tech: C++, ESP32, MQTT, TensorFlow, IoT. (2022)

## Publications

- [C.1] **Jing Yang, et al.** (2023). **An Efficient Visible Light Positioning and Rotation Estimation System Using Two LEDs and a Photodiode Array.** In *2023 IEEE Wireless Communications and Networking Conference (WCNC)*(Glasgow, United Kingdom, 12 May 2023). DOI: 10.1109/WCNC55385.2023.10118745
- [P.1] **Bingcheng Zhu, Jing Yang, et al.** (2023). **Receiver Positioning and Rotation Angle Estimation System Based on Photodiode and LED.** Patent CN115902946A, 4 Apr 2023.