Yuqing Liu

MSc Student in Robotics | University of Twente, Netherlands

Introduction

Passionate MSc student specializing in robotics, with a strong background in mechatronics and robotic systems. Skilled in kinematics, robot control, embedded systems, and computer vision. Currently exploring machine perception, autonomous navigation, and reinforcement learning.

Education

- **University of Twente** — MSc in Robotics

  Netherlands | Sep 2024 – Jun 2026

- **Xi'an Jiaotong-Liverpool University** — BSc in Mechatronics and Robotic Systems

  Suzhou, China | Sep 2020 – Jun 2024

Experience

ETRON Technologies — Research Intern

Suzhou, Jiangsu, China | Jun 2022 – Aug 2022

- Responsible for development and debugging of the upper computer system on an electrical medical microscope.

- Gained hands-on experience in C, C++ programming and embedded systems development.
- Worked on real-time system control and upper-layer software integration for medical devices.

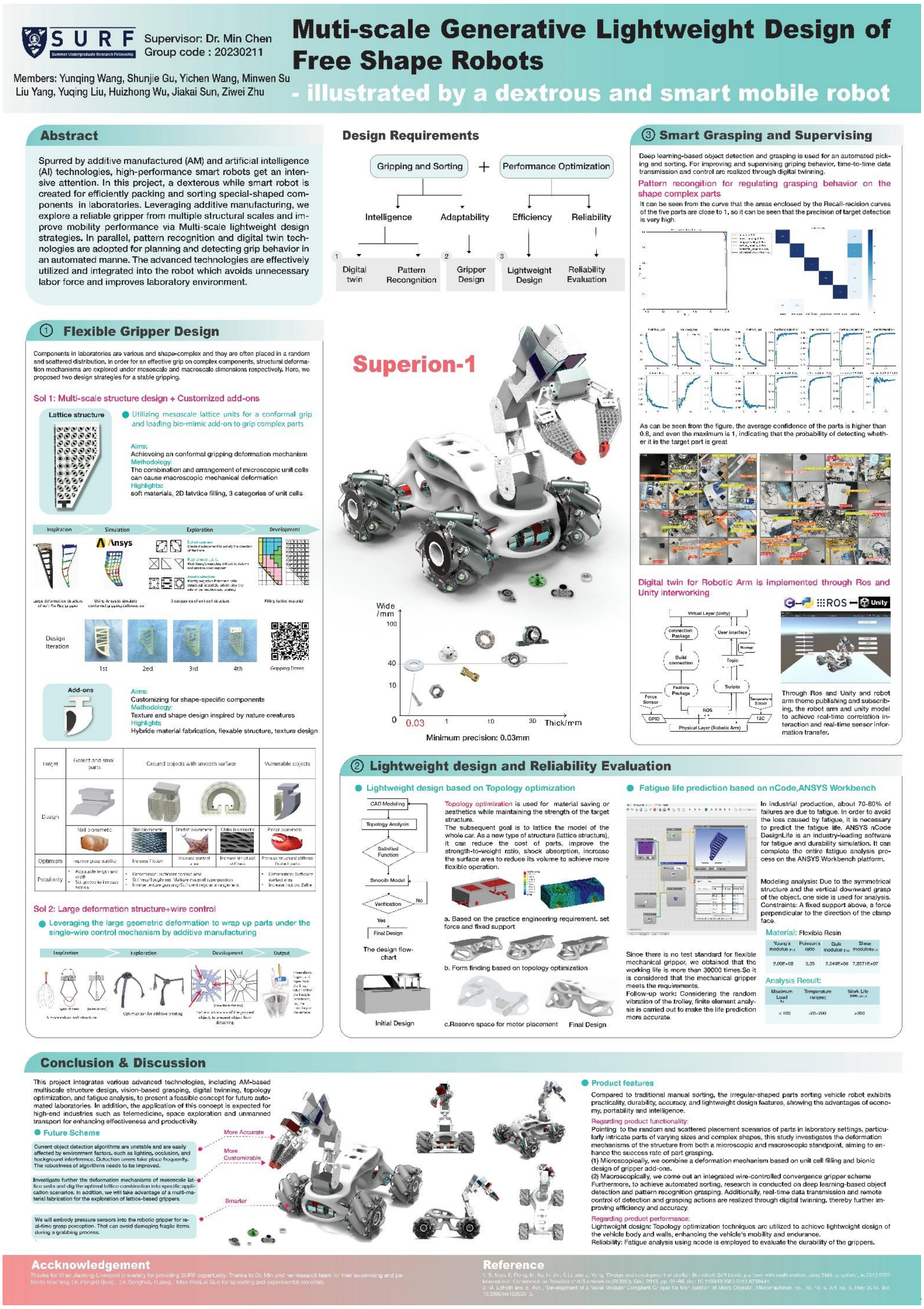
Research Experience

Smart Trolley for Lab

Xi'an Jiaotong-Liverpool University — Summer Undergraduate Research Fund (SURF) Program

Supervisor: Dr. Min Chen | Jun 2023 – Aug 2023

- Designed and built a trolley system for gripping and recognizing laboratory workpieces.
- Responsibilities included end effector design, topology optimization, and computer vision algorithm development using OpenCV.
- Improved mechanical design for laboratory applications, making the robotic trolley more compact and easier to operate.
- Developed an enhanced visual recognition system for better object detection and laboratory task automation.
- Presented research results through a comprehensive poster at the SURF event.



Skills

- Robotics Systems

- Robot Kinematics and Dynamics
- Robotics Programming
- Embedded Systems Development
- Computer Vision (OpenCV)
- Machine Perception
- Autonomous Navigation
- C / C++ Programming
- Embedded C Programming
- Reinforcement Learning