Yiyi Wu

wuyiyi47@gmail.com | 603-852-0687 | Personal Page: https://wyy-47.github.io/

OBJECTIVE

Seeking an entry-level Engineer position to apply a strong foundation in robotics, AI/NLP/CV, analytical mathematics, and hands-on problem-solving to the integration and verification of product systems, contributing to the delivery of quality, integrated solutions in a collaborative, team-oriented environment.

My Waldorf education developed my teamwork, hands-on skills, and interdisciplinary knowledge, enabling effective collaboration and cross-disciplinary integration.

EDUCATION

Worcester Polytechnic Institute (WPI) | Worcester, MA

Master of Science in Robotics Engineering, **GPA 3.87/4** May 2025

Bachelor of Science in Mathematical Sciences and Robotics Engineering, **GPA 3.5/4.0** May 2023

Relevant Coursework: Robot Dynamics & Control, Robotic Arm with Real-time and Vision Based Control, AR adaptation of ultrasound guidance based on project mapping, Project Management

TECHNICAL SKILLS

Programming Language: Python, C&C++, MATLAB, Java, Arduino, SQL, R, ROS/ROS 2

Software: MATLAB, SolidWorks, Excel, PowerPoint, COMSOL, Adobe Photoshop, Premiere Pro, Gazebo

Operational: 3D printing, Laser cutter, soldering, mechanical works

International Languages: English (fluent), Mandarin Chinese (Mandarin, native)

EXPERIENCE & PROJECTS

Multimodal AI Robotic for ASD Therapy | Research Assistant, RoboCare Lab**,** WPI Oct 2024 – Present

- Developed multimodal AI perception (NLP, speech recognition, and computer vision) for NAO robot.
- Implemented gesture recognition and emotion detection algorithms.
- Designed and implemented a 5-session therapeutic framework with dual interfaces, improving therapy engagement for autistic children.

Recommender System Engineer | Intern, Tencent Holdings Ltd., Guangzhou, China Jun 2024 – Aug 2024

- Improved recommender systems by optimizing recall, ranking, and sorting.
- Extracted and utilized key feed features: follower count, age, and gender, from FKV tables to train models.

Electronic-free Fluidic Actuators | WPI August 2023 – October 2023

- Designed and fabricated fluidic actuators without the use of any electronic component or circuitry.
- Modeled fluidic components and actuator movement using COMSOL multi-physics.

Embedded Computing in Engineering Design | WPI May 2021 - July 2021

- Solved real-world design problems using MSP430 Microcontroller and C programming.
- Developed an embedded "Guitar Hero" game on MSP430, integrating sensors/devices.

Autonomous Navigation and Path Finding Robot System | WPI March 2023 – May 2023

- Programmed a Turtlebot 3 in ROS and Python for autonomous SLAM mapping and maze exploration.
- Integrated AMCL for self-localization and developed an A* pathfinding algorithm for autonomous navigation.

Autonomous Robot for Solar Panel Transfer | WPI January 2021 – March 2021

- Developed a C++ algorithm with PID control for precise robotic arm movement to transfer "solar panels".
- Engineered and fabricated a custom gripper to lift and place "solar panels" onto elevated platforms.

PUBLICATION

Y. Wu, M. Kaur, and F. Yuan, “A Progressive Multimodal Robot System for Emotional Learning in Autistic Children”, in Proceedings of ICSR, Napoli, Italy, 2025, accepted.