Yidong Jiang

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Education

University of Wisconsin - Madison, WI United States

Aug. 2025 - expected Jun. 2026

Visiting International Student

Advisor: Prof. Xiaobin Xiong, Humanoid Robotics

Macmaster University, Ontario Canada

Jun. 2024 - Sep. 2024

Summer Visiting Student

Advisor: Prof. Rong Zheng, Mobile Computing

University of Science and Technology of China, Hefei China

Sep. 2022 - expected Jul. 2026

Bachelor of Science in Data Science

Advisor: Prof. Yanyong Zhang (IEEE Fellow), Perception

Core Courses: Computer programming (A); Electromagnetism (A); Complex Analysis (A-);

Summer Internship (A); Machine Learning (A-); Deep Learning (A-)

Research Experience

Online Whole-Body Robot Teleoperation via Piper – Vive Integration

Aug..2025 - Present

Advisor: Prof. Xiaobin Xiong (ME, UW - Madison)

- Built an online teleoperation platform using Piper and Vive, enabling real-time robot control and data collection.
- Achieved low latency and high synchronization between human motion and robotic execution.
- Open-sourced the system on GitHub for public use and reproducibility.[code]

3D-UKF-Based Multi-Drone Tracking for noised environment UAV Perception Spt. 2024 - Jul. 2025 Advisor: Prof. <u>Yanyong Zhang</u> (Computer Science, USTC)

- This project involves reduce environmental noise and creating a 3D-UKF structure and using IMM-UKF to track drones.
- The proposed method improves the signal-to-noise ratio (SNR), leading to higher UAV detection rates and accuracy.
- Core contributor of *BSense: Wide-Area UAV Detection and Localization with 5G-Advanced Base Station*. Submitted to MobiCom 2026, September 3, 2025.

Radar-Based Sleep Safety and Health Monitoring Using Machine Learning Jun. 2024 - Present Advisor: Prof. Rong Zheng (Computing and Software, McMaster University)

Advisor: Prof. Rong Zheng (Computing and Software, McMaster University)

- Leading author. Designed and developed a radar-based system for sleep mnitoring using machine learning, reducing reliance on wearable sensors.
- Processed heart rate, respiration, and motion signals to classify sleep stages via a rule-based decision tree
- Preparing for journal submission.

Monte Carlo Tree Search for Strategic Card Game Optimization

May 2024 - Sept. 2024

Advisor: Prof. Kani Chen (Financial Mathematics, HKUST)

- Developed an AI agent for the strategic card game Guandan, integrating teaching and gameplay.
- Designed a reinforcement learning framework based on the Deep Monte Carlo model to learn optimal strategies and adapt to complex multi-agent interactions.
- Achieved a win rate of 70%, demonstrating strong performance in high-dimensional decision spaces.
- Explored Monte Carlo Tree Search for improved adaptability, revealing scalability challenges inherent to high-dimensional combinatorial games

Skills

Computer Skills: C; C++; Python (PyTorch); Compiler; Latex; ROS2

English Proficiency: TOEFL 95 (R 28; L 22; S 23; W 22;)

Active in Github and Huggingface

Awards

USTC Fellowship(top 25%)	2024
Best Improvement Scholarship(top 30%)	2023
Outstanding Freshman Scholarship	2022