

# HANG YU

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## EDUCATION

**Tufts University** • Medford, MA Jan 2021 – Present  
*Ph.D Candidate* • *Computer Science* • GPA: 4.0/4.0 • Anticipated Graduation Dates: 05/2026

**Tufts University** • Medford, MA Sep 2019 – Dec 2020  
*Master of Science* • *Computer Science* • GPA: 3.96/4.0

**Relevant Courses:** Algorithms (A), Social Assistive Robotics (A), Principles of Data Science in Python (A), Probabilistic Robotics for HRI (A), Deep Neural Networks (A), Artificial Intelligence (A), Data Mining (A)

## RESEARCH OVERVIEW

My current research focuses on **Human-Centered AI in Robotic** and **Interactive Reinforcement Learning**, focusing on improving human-in-the-loop learning. I worked on **Data Mining** and **Recommendation System** research experience for four years as an undergrad. Before joining the grad school, I have **11 years of programming competition** experience.

**Key words:** human-robot interaction, interactive reinforcement learning, learning from demonstration, data mining

## PUBLICATIONS

### Peer-Reviewed Conference Papers

- **Hang Yu**, Reuben M. Aronson, Katherine H. Allen, and E. Short, *From “Thumbs Up” to “10 out of 10”: Reconsidering Scalar Feedback in Interactive Reinforcement Learning* 2023 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), Detroit, USA, 2023.
- **Hang Yu**, Qidi Fang, Shijie Fang, Reuben M. Aronson, and E. Short, *How Much Progress Did I Make? An Unexplored Human Feedback Signal for Teaching Robots* 2024 IEEE RO-MAN

### Peer-Reviewed Journal Articles

- Tan, Z., **Yu, H.**, Wei, W., & Liu, J. (2020). *Top-K interesting preference rules mining based on MaxCliques*. Expert Systems with Applications, 143, 113043.
- **YU Hang**, WEI Wei, TAN Zheng, LIU Jing-lei. *Contextual Preference Collaborative Measure Framework Based on Belief System*. Computer Science, 2020, 47(4): 74-84.
- TAN, Z., LIU, J., & **YU, H.** (2017). *Conditional preference mining based on MaxCliques*. Journal of computer Applications, 37(11), 3107.

### Peer-Reviewed Workshop Papers

- **Hang Yu** and Elaine Schaertl Short. 2021. *Active Feedback Learning with Rich Feedback*. In Companion of the 2021 ACM/IEEE International Conference on Human-Robot Interaction (HRI '21 Companion). Association for Computing Machinery, New York, NY, USA, 430–433.
- **Hang Yu** and Elaine Schaertl Short. 2020. *Learning with Dynamic Feedback*. RSS workshop 2020: Closing the Academia to Real-World Gap in Service Robotics.

## TEACHING AND MENTORING

### Teaching Assistant

- Data Structures, Tufts University Summer 2024
- Ethics for AI, Robotics, and Human-Robot Interaction, Tufts University Spring 2024
- Human Robot Interaction, Tufts University Fall 2022
- Human Computer Interaction, Tufts University Spring 2021
- C++ programming, Yantai University Spring 2017

### Mentoring

- Matthew Ebisu, Master's Thesis, Tufts University 2022 - present
- Qidi Fang, Master's Project, Tufts University 2023 - present
- Shijie Fang, Master's Project Tufts University 2024 - present
- Wei Wei, Undergraduate Research, Yantai University, (Journal Article:1 and 2) 2017 - 2019

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## PROJECT AND WORK EXPERIENCE

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### Phoenix Gaming Studio, Yantai University Founded Project

2016 - 2018

- Leader and Founder of the gaming developing Team
- Game developing and game GUI designing using C# and Unity, writing game scripts

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## SERVICE

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- Tufts Computer Science Student Council, 2023 - present
- Reviewer for International Conference on Human-Robot Interaction (HRI), 2021, 2022, 2023
- Reviewer for International Conference on Robotics and Automation (ICRA), 2023
- DIAMOND Program Panel, 2023
- Human-Robot Interaction paper accessibility service, 2020
- Co-organizer, Tufts AABL Lab Hackathon, 2021 - present
- Co-founder of the Tutfs HRI Reading Group, 2020 - present
- Tufts Noloop Haunting House Event, 2021 - present
- Coordinator of AABL lab tour, 2022 - present
- Vice President of Yantai University Photography Club, 2016, 2017
- Student Leader of Yantai University Lanqiao programming lab, 2016 - 2018

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## AWARDS AND SKILLS

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- National First Prize **top 0.5%**, Lanqiao Programming Competition May 2016
- Yantai University Speech Competition, Third Place Oct 2015
- **Skills:** C, C++, Python, Java, C#, Pascal, Q-Basic, SQL, ROS, Unity
- **Research Experience:** Data Mining and Recommendation System (4 yrs), Interactive Reinforcement Learning and Robotic (4 yrs)