

# Hang Yu

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## Overview

My current research focuses on **Human-Centered AI in Robotics**, **Learning from Human Feedback**, and **Learning from Demonstrations**. I worked on data mining and recommendation systems for three years at Yantai Univeristy. I have 7 years of programming competition experience. I am a 99% cat person, and I love games and books.

**Keywords:** Human-Robot Interaction, Reinforcement Learning from Human Feedback, Recommendation Systems

## Skills

**Programming Languages:** Python(PyTorch, OpenCV), Java, JavaScript, MATLAB, C++, C#, SQL, Pascal

**Software:** ROS, JASP, Git, L<sup>A</sup>T<sub>E</sub>X, Qualtrics, Photoshop

**Hardware:** Kinova Gen2/Gen3/Gen3-lite, UR5, Misty II, Sphero BOLT

**Knowledge:** Robotics, Reinforcement Learning from Human Feedback, Learning from Demonstrations, Model Fine Tuning, Large Language Models, Human-Subject Studies, Statistic Analysis, Data Mining, Recommendation System

## Education

### Tufts University

Ph.D. in Computer Science, GPA: 4.0/4.0

Advisor: Dr. Elaine Schaertl Short

Medford, MA

Dec. 2025(expected)

### Tufts University

M.S.E. in Computer Science, GPA: 3.95/4.0

Advisor: Dr. Elaine Schaertl Short

Medford, MA

Jan. 2021

## Publications

### Conference Publications

- C2 **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.
- C1 **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, Pasadena, USA

### Journal Publications

- J3 Tan, Z., **Yu, H.**, Wei, W., & Liu, J. (2020). *Top-K interesting preference rules mining based on MaxClique*. Expert Systems with Applications, 143, 113043.
- J2 **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.
- J1 TAN, Z., LIU, J., & **YU, H.** (2017). *Conditional preference mining based on MaxClique*. Journal of computer Applications, 37(11), 3107.

### Workshop Papers & Abstracts

- W2 **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.
- W1 **Hang Yu** and Elaine Schaertl Short. 2020. *Learning with Dynamic Feedback*. RSS workshop 2020: Closing the Academia to Real-World Gap in Service Robotics.

### Under-Review Papers

\* means these authors contributed equally to the work.

- U3 Matthew Ebisu\*, **Hang Yu\***, Reuben M. Aronson, Elaine S. Short, *See What I Mean? Expressiveness and Clarity in Robot Display Design*, International Conference on Robot and Human Interactive Communication (RO-MAN 2025)

U2 Qidi Fang\*, **Hang Yu\***, Shijie Fang, Jindan Huang, Qiuyu Chen, Reuben M. Aronson, Elaine S. Short, *CHARM: Considering Human Attributes for Reinforcement Modeling*, International Conference on Robot and Human Interactive Communication (RO-MAN 2025)

U1 Shijie Fang\*, **Hang Yu\***, Qidi Fang, Reuben M. Aronson, Elaine Schaertl Short, *Demonstration Sidetracks: Categorizing Systematic Non-Optimality in Human Demonstrations*, International Conference on Robot and Human Interactive Communication (RO-MAN 2025)

Projects

**Customized Fortune Teller**.....  
A customized fortune teller with my own philosophy of Yunshi with modern social science theories.  
Fine tuning a DeepSeek 8B model with self-constructed CoT examples, RAG, and RLHF.

**Phoenix Gaming Studio, Founded by Yantai University**.....  
Leader and Founder of the gaming developing Team  
Game developing and game GUI designing using C# and Unity, writing game scripts

Honors/Awards

RO-MAN Travel Grant, Los Angeles, United States	2024
Department Prize for Outstanding Students, Yantai University	2017
National First Prize (Top 0.5%), Lanqiao Programming Competition, Beijing, China	2016
Speech Competition Third Prize, Yantai University	2016

Teaching/Mentoring/Outreach

<b>Mentor</b>	
Matthew Ebisu, Master’s Student, Co-author of U3, Tufts University	2021–2024
Shijie Fang, Master’s Student, Co-author of C1, U1, U2, Tufts University	2023–2024
Qidi Fang, Master’s Student Co-author of C1, U1, U2, Tufts University	2023–2024
<b>Outreach</b>	
DIAMOND Program Panel	2023
Keynote Presenter at First Robotics Competition Conference NE	2024
<b>Teaching Assistant</b>	
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

Professional Service

<b>Reviewer</b>	
Reviewer for International Conference on Human-Robot Interaction (HRI)	2021, 2022, 2023, 2024
Reviewer for International Conference on Robotics and Automation (ICRA)	2023, 2024
Reviewer for International Symposium on System Integrations (SII 2025)	2024
International Conference on Autonomous Agents and Multiagent Systems (AAMAS)	2023
<b>Organizer/Co-organizer</b>	
Tufts AABL Lab Hackathon	2021–present
Tufts Human-Robot Interaction Reading Group	2020–present
<b>Student Volunteer</b>	
IEEE International Conference on Robot and Human Interactive Communication	2024
Tufts Computer Science Student Council	2023, 2024, 2025
ACM/IEEE International Conference on Human-Robot Interaction (HRI)	2021