

# Zhengran Ji

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## Education

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**Duke University**, Durham, NC May 2025

- Masters of Science in Computer Science (Research Track)
- Thesis: *Strategic Agent Learning with Human-in-the-Loop*
- Advisor: Boyuan Chen

**University of California, Irvine**, Irvine, CA June 2023

- Bachelor of Science in Data Science (Honors Program)
- Bachelor of Science in Mathematics (Honors Program)
- **Phi Beta Kappa, Cum Laude, Pi Mu Epsilon**

## Publications

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- [1] **Zhengran Ji**, Lingyu Zhang, Paul Sajda, Boyuan Chen, *HUMAC: Enabling Multi-Robot Collaboration from Single-Human Guidance*, **ICRA 2025**, Jan 2025.
- [2] Lingyu Zhang, **Zhengran Ji**, Nicholas R. Waytowich, Boyuan Chen, *GUIDE: Real-Time Human-Shaped Agents*, **NeurIPS 2024**, Sep 2024.
- [3] Lingyu Zhang, **Zhengran Ji**, Boyuan Chen, *CREW: Facilitating Human-AI Teaming Research*, **TMLR**, Nov 2024.
- [4] **Zhengran Ji**, Mike Hu, and Huolin Xin, *MnEdgeNet for Accurate Decomposition of Mixed Oxidation States for Mn XAS and EELS L<sub>2,3</sub> Edges without Reference and Calibration*, **Scientific Report**, Aug 2023.
- [5] Huolin Xin, Chunyang Wang, **Zhengran Ji**, Mike Hu, and Lingli Kong, *A Universal Data Synthesizer to Enable AI4TEM*, **Microscopy and Microanalysis**, Jul 2023.
- [6] Huolin Xin, Chunyang Wang, Dong Zhu, **Zhengran Ji**, Mike Hu, and Lingli Kong, *Decoding Spatial Symmetry and EELS Spectroscopic Fine Structures*, **Microscopy and Microanalysis**, Jul 2023.
- [7] Lingli Kong, **Zhengran Ji**, and Huolin Xin, *Electron Energy Loss Spectroscopy Database Synthesis and Automation of Core-Loss Edge Recognition by Deep-Learning Neural Networks*, **Scientific Report**, Dec 2022.

## Research Experience

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**Duke University General Robotics Laboratory** Sep 2023 – Present

- Training Effective Agent Policies with Human-in-the-Loop
- Human-Guided Reinforcement Learning, Multi-agent/multi-robot systems

**UCI DeepEM Laboratory** Jun 2021 – Sep 2023

- Developing Intelligent Transmission Electron Microscope (TEM) using Deep Learning

## Awards

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UCI Chancellor's Award of Distinction	Apr 2023
UCI Chancellor's Award of Excellence in Research	May 2023
UCI 3rd ICS Expo 1st Place Prize in ICS Honors Program	May 2023
UCI Math Undergraduate Research & Departmental Service Award	May 2023
UCI Math Honors Award	May 2023
UCI Dean's List	Jan 2020 – Jun 2023
UCI Outstanding Service and Online Mentorship Award	Jun 2021

## Fellowships

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Duke University Dean's Research Award for Master's Students Nov 2024  
UCI Undergraduate Research Opportunity Program Fellowship Sep 2022

## Working Experience

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### Duke Graduate Research Assistant

- General Robotics Laboratory Fall 2023 - Present

### Duke Graduate Teaching Assistant

- COMPSCI 230: Discrete Mathematics for Computer Science Fall 2023

### UCI Learning Academic Resource Center Tutorial Leader

- Math 2B: Single Variable Calculus II Sep 2022 – Jun 2023

### UCI Undergraduate Teaching Assistant

- Math 2B: Single Variable Calculus II Spring 2023, Winter 2023, Spring 2022
- I&C ICS 46: Data Structure Implementation and Analysis Winter 2023
- Math 1B: Pre-Calculus II Winter 2023, Winter 2022
- Math 9: Introduction to Programming for Numerical Analysis Fall 2022
- Math 120A: Abstract Algebra Spring 2022

### UCI Undergraduate Grader

- Math 130B: Probability II Spring 2022
- Math 130A: Probability I Winter 2022, Fall 2022

### Peer Academic Advisor

- UCI Undergraduate/Undeclared Program Mar 2022 – Jun 2023

### UCI Math Circle Mentor

Jan 2021 – Dec 2021