# Huaxiaoyue (Yuki) Wang

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@YukiWang\_hw | in yukiwang-hw Cornell University, Ithaca, NY
Google Scholar

## **Summary**

Cornell final-year CS PhD Candidate with ML, NLP, and robotics expertise working on decision-making agents that act given different levels of information (e.g. video, language instruction, natural language feedback). Specializing in large language models, foundation models for robotics, and LLM agents. Experienced in conducting real-world experiments, training ML models, and leading research projects that are accepted to top ML conferences.

### Research Experience

05/2025 - 11/2025

Research Scientist Intern.

Adobe Research.

Mentor: Stefano Petrangeli, Sunav Choudhary, Franck Dernoncourt, Yu Shen, Saayan Mitra.

- AI Assistant for Adobe Product: Building data-efficient algorithm to align AI in low-data regime. Demonstrating algorithm's impact through integration with production code base. Filed for patent and preparing for paper submission.

08/2022 - present

Graduate Research Assistant.

Cornell University, Computer Science Department.

Advisor: Prof. Sanjiban Choudhury, OpenAI/PoRTaL group.

Published at NeurIPS 2022; CoRL 2024 (2x); ICML 2025.

- AI agents learning from visual demonstrations: Inverse reinforcement learning for manipulation tasks [3], [5]; active preference learning using LLMs [4]; code generation as task planning for robots [7].
- LLM agents learning from interaction: Proposed efficient algorithm to improve RL exploration by leveraging past interactions. Trained Llama-3.2-3B models as process reward model and agents for multi-turn conversational task [1], [2].
- **Real-world robotics systems**: long-horizon mobile manipulation [4]; collaborative home cooking with a user and two robots [6].

05/2021 - 05/2022

Undergraduate Research Assistant.

Harvey Mudd College, Computer Science Department.

Published at ICAPS 2022.

Advisor: Prof. Jim Boerkoel, Human Experience & Agent Teamwork Lab.

- **Human-robot collaboration**: Theoretically investigated task allocation given temporal constraints [8].

02/2020 - 05/2022

Undergraduate Research Assistant.

Harvey Mudd College, Engineering Department.

Advisor: Prof. Christopher Clark, Lab for Autonomous and Intelligent Robotics.

08/2018 - 12/2019

Undergraduate Research Assistant.

Harvey Mudd College, Engineering Department.

Advisor: Prof. David Harris, The HMC Aero Lab.

#### **Education**

2022 – present

Cornell University, Ph.D.

Department of Computer Science, GPA 4.0/4.0

Advisor: Sanjiban Choudhury. Expected to Graduate: May 2026

## **Education (continued)**

2018 - 2022

Havery Mudd College, B.S.

Department of Computer Science, GPA 3.9/4.0

### **Technical Skills**

Languages: Python, ROS, C/C++, Java, JavaScript, HTML/CSS

Libraries: PyTorch, Transformers, vllm, Gym

#### **Research Publications**

#### **Conference Proceedings**

- Huaxiaoyue Wang and S. Choudhury, "The road not taken: Hindsight exploration for LLMs in multi-turn RL," in *The Exploration in AI Today Workshop at ICML 2025*, 2025. OURL: https://openreview.net/forum?id=1jqYCS1LxR.
- **Huaxiaoyue Wang** and S. Choudhury, "The road not taken: Hindsight exploration for LLMs in multi-turn RL," in ES-FoMo III: 3rd Workshop on Efficient Systems for Foundation Models, 2025. OURL: https://openreview.net/forum?id=xIifnHONrv.
- W. Huey\*, **Huaxiaoyue Wang\***, A. Wu, Y. Artzi, and S. Choudhury, "Imitation learning from a single temporally misaligned video," in *Forty-second International Conference on Machine Learning*, 2025.

  OURL: https://openreview.net/forum?id=YV05KZt7v2.
- 4 **Huaxiaoyue Wang**, N. Chin, G. Gonzalez-Pumariega, et al., "APRICOT: Active preference learning and constraint-aware task planning with LLMs," in 8th Annual Conference on Robot Learning, 2024.

  © URL: https://openreview.net/forum?id=nQslM6f7dW.
- Huaxiaoyue Wang\*, W. Huey\*, A. Wu, Y. Artzi, and S. Choudhury, "Time your rewards: Learning temporally consistent rewards from a single video demonstration," in CoRL 2024 Workshop on Whole-body Control and Bimanual Manipulation: Applications in Humanoids and Beyond, 2024. OURL: https://openreview.net/forum?id=gsgkiuv9BS.
- Huaxiaoyue Wang\*, K. Kedia\*, J. Ren\*, et al., "MOSAIC: Modular foundation models for assistive and interactive cooking," in 8th Annual Conference on Robot Learning, 2024. URL: https://openreview.net/forum?id=dU06j3YURS.
- Huaxiaoyue Wang, G. Gonzalez-Pumariega, Y. Sharma, and S. Choudhury, "Demo2code: From summarizing demonstrations to synthesizing code via extended chain-of-thought," in *Thirty-seventh Conference on Neural Information Processing Systems*, 2023. © URL: https://openreview.net/forum?id=ftPoVcm821.

#### **Journal Articles**

M. Morgan\*, J. Schalkwyk\*, **Huaxiaoyue Wang\***, et al., "Simple temporal networks for improvisational teamwork," *Proceedings of the International Conference on Automated Planning and Scheduling*, vol. 32, no. 1, pp. 261–269, Jun. 2022. ODI: 10.1609/icaps.v32i1.19809.

## **Teaching Experience**

08/2022 - 05/2023

**■ Graduate Teaching Assistant.** 

Cornell University, Computer Science Department. Introduction to CS, Robot Learning Supervisors: Prof. Sanjiban Choudhury, Prof. Walker White.

## **Teaching Experience (continued)**

08/2019 - 05/2022

**■** Undergraduate Teaching Assistant.

Cornell University, Computer Science Department.

Courses: Intro. to CS; Data Structure & Programming Development;

Computability & Logic; Algorithms.

Supervisors: Prof. Zachary Dodds; Prof. Julie Medero; Prof. George D. Montanez;

Prof. Ran Libeskind-Hadas.

## **Awards and Achievements**

At ICRA 2024, "MOSAIC: Modular foundation models for assistive and interactive cooking" won **the Best Paper** at the VLMNM Workshop and **the Best Poster** at the MoMa Workshop.

The Greever Award, Harvey Mudd College.

Made an outstanding contribution to a collaborative project with eBay.

- **Graduated with High Distinction**, Harvey Mudd College.
- **Departmental Honors in Computer Science,** Harvey Mudd College.