# Yuxiao Qu

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### Education

**Carnegie Mellon University** May 2024 - Present PhD in Machine Learning

Advisor: Prof. Aviral Kumar & Prof. Ruslan Salakhutdinov

**Carnegie Mellon University** Aug 2023 - May 2024

Pittsburgh, PA

Master of Science in Machine Learning Pittsburgh, PA

Advisor: Prof. Aviral Kumar

GPA: 4.28/4.33

**University of Wisconsin - Madison** Sep 2020 – Dec 2022

Bachelor of Science in Computer Science and Mathematics Madison, WI

Avisor: Prof. Josiah P. Hanna

GPA: 4.00/4.00

The Chinese University of Hong Kong Sep 2017 – May 2020

Major: Computer Science Hong Kong

# **Honors and Scholarships**

☐ Best paper award in 2021 IEEE/ACM Asian and South Pacific Design Automation Conference

□ 2021 ICPC North Central NA Regional Contest (15th/96)

□ 2020 Professor Charles K. Kao Research Exchange Scholarship

☐ Best project award in 2019 Undergraduate Summer Research Internship

## **Publications**

(\*indicates Equal Contribution)

### 1. Optimizing Test-Time Compute via Meta Reinforcement Finetuning

Yuxiao Qu, Matthew Y. R. Yang, Amrith Setlur, Lewis Tunstall, Edward Emanuel Beeching, Ruslan Salakhutdinov, Aviral Kumar

**Preprint** 

### 2. Harnessing Webpage UIs for Text-Rich Visual Understanding

Junpeng Liu, Tianyue Ou\*, Yifan Song\*, Yuxiao Qu\*, Wai Lam, Chenyan Xiong, Wenhu Chen, Graham Neubig, Xiang Yue

The Thirteenth International Conference on Learning Representations (ICLR), 2025

### 3. Recursive Introspection: Teaching Language Model Agents How to Self-Improve

Yuxiao Qu, Tianjun Zhang, Naman Garg, Aviral Kumar

The Thirty-Eighth Annual Conference on Neural Information Processing Systems (NeurIPS), 2024

### 4. Guided Data Augmentation for Offline Reinforcement Learning and Imitation Learning

Nicholas E. Corrado, Yuxiao Qu, John U. Balis, Adam Labiosa, Josiah P. Hanna

The first Reinforcement Learning Conference (RLC), 2024

## 5. FLEE-GNN: A Federated Learning System for Edge-Enhanced Graph Neural Network in Analyzing **Geospatial Resilience of Multicommodity Food Flows**

Yuxiao Qu, Jinmeng Rao, Song Gao, Qianheng Zhang, Wei-Lun Chao, Yu Su, Michelle Miller, Alfonso Morales, Patrick Huber

ACM SIGSPATIAL International Workshop on AI for Geographic Knowledge Discovery, 2023

### 6. Simulation-Acquired Latent Action Spaces for Dynamics Generalization

Nicholas Corrado, Yuxiao Qu, Josiah P. Hanna

Proceedings of Machine Learning Research (PMLR), 2022

# 7. Polite or Direct? Conversation Design of a Smart Display for Older Adults Based on Politeness Theory

Yaxin Hu, Yuxiao Qu, Adam Maus, Bilge Mutlu

ACM CHI Conference on Human Factors in Computing Systems (CHI), 2022

### 8. TreeNet: Deep Point Cloud Embedding for Routing Tree Construction

Wei Li, Yuxiao Qu, Gengjie Chen, Yuzhe Ma, Bei Yu

ACM Asian and South Pacific Design Automation Conference (ASPDAC), 2021 (Best Paper Award)

### **Invited Talks**

## ☐ Recursive Introspection: Teaching Language Model Agents How to Self-Improve

ICML Workshop on Large Language Models and Cognition

July 2024

# **Teaching Experience**

### **Undergraduate Teaching Assistant**

University of Wisconsin – Madison

□ COMP SCI 577: Introduction to Algorithms (Honor Session)

Fall 2022

□ COMP SCI 537: Introduction to Operating Systems

Fall 2022

# **Work Experience**

### **Morgridge Institute for Research**

Research Software Engineer

Apr 2023 – Aug 2023

Madison, WI

# **Proessional Service**

Reveiewer for ICML (2024), NeurIPS (2024), AISTATS (2025), ICLR (2025)