

Yuqing Wu

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Education

Cornell University, College of Engineering

Sept 2022 – May 2026

Bachelor of Science in Computer Science and Operations Research

- GPA: 3.97/4.0
- **Relevant Coursework:** Robot Learning, Reinforcement Learning, Machine Learning, Natural Language Processing, Foundations of Robotics, Algorithms, Optimization, Stochastic Processes, Real Analysis, Simulation Modeling, Computer Systems, Discrete Math, Probability, Linear Algebra, OOP and Data Structures

Research Experience

Undergraduate Researcher, Cornell University

Feb 2024 – Present

Advisor: Qian Yang

Human Learning Through AI-Assisted Writing

- Analyzed how people use large language models (LLMs) to assist their writing and its impact on their learning outcomes.
- Adapted existing writing assistant web app by adding a prewriting stage without AI and a feature about querying ChatGPT.
- Used the web app to run 19 user studies.
- Processed keystroke log data into higher level actions to distinguish human AI turns.
- Researched metrics for measuring the amount of conceptual and identity-based learning, including number of arguments, evidence type, agency, communion, episodic re-experiencing.
- Identified human-AI interaction patterns that benefits/hinders learning.

Journaling Prompt Recommendation System with Multi-Armed Bandits

- Investigated how to recommend journaling prompts to people to increase retention.
- Designed reward for the bandit model by clustering keystrokes and maximizing the number of clusters as a measure of engagement.
- Tested different bandit algorithm's performance on the designed reward using an oracle trained from collected data.

Presented research at Cornell Bowers Undergraduate Research Experience (BURE) summer program.

Undergraduate Researcher, Cornell University

June 2024 – Nov 2024

Advisor: Kevin Ellis

Solving the Abstraction and Reasoning Corpus (ARC)

- Studied how to train AI to generate output grids from limited input grids, comparing Python program generation using language models with direct predictions from neural network approaches.
- Developed seed programs to guide the program synthesis model in making accurate predictions.

Presented research at Cornell Bowers Undergraduate Research Experience (BURE) summer program.

Undergraduate Researcher, Cornell Virtual Embodiment Lab

Feb 2023 - May 2024

Advisor: Andrea Won

Gender Swapping Avatars in VR Reconstructed Teaching

- Examined how gender swapping teacher's avatar in VR affect their perceived teaching effectiveness.
- Assisted in user studies and cleaning up collected data.

MazeWorld for Team Collaborations

- Assisted in a study about team collaboration in VR by having people with different roles navigate through mazes and solve puzzles collaboratively.
- Implemented role selection procedures in Unity.

Publications

Wen-Ding Li, Keya Hu, Carter Larsen, **Yuqing Wu**, Simon Alford, Caleb Woo, Spencer M. Dunn, Hao Tang, Michelangelo Naim, Dat Nguyen, Wei-Long Zheng, Zenna Tavares, Yewen Pu, Kevin Ellis

Combining Induction and Transduction for Abstract Reasoning

In International Conference on Learning Representations (**ICLR**), **2025**

- 1st place ARC Prizes 2024 Paper Award Winner.

Awards

Hunter R. Rawlings III Cornell Presidential Research Scholar, Cornell University

CRA Outstanding Undergraduate Research Award Nominee (2025)

Dean's Honor List, Cornell University

Teaching Experience

Teaching Assistant, Cornell University

- **CS4740**: Natural Language Processing Spring 2025
- **CS3780**: Introduction to Machine Learning Spring 2024, Fall 2024

Skills

Languages: Python, JavaScript, Java, C/C++, \LaTeX

Libraries: PyTorch, Numpy, Pandas, transformers, rospy, spaCy, NLTK