

Xinran Liang

☎ 609-937-3470 | ✉ xinranliang@princeton.edu | 🏠 <https://xinranliang.github.io/xinranliang/> | 🌐 xinranliang | 📍 Princeton, NJ

Education

Princeton University

Doctor of Philosophy in Computer Science

Princeton, NJ

Sep 2022 - Present

University of California, Berkeley

Bachelor of Arts in Applied Mathematics and Data Science

Berkeley, CA

Aug 2018 - May 2022

GPA: 4.0 / 4.0

Related coursework: Artificial Intelligence, Machine Learning, Optimization, Probability and Stochastic Process, Efficient Algorithms, Deep Reinforcement Learning, Deep Learning for Computer Vision, Deep Unsupervised Learning, Real and Complex Analysis, Linear Algebra

Research Experience

Princeton VisualAI Lab

Graduate Student Researcher

Princeton, NJ

Jan 2023 - Present

- Advisor: Olga Russakovsky.

Robot Learning Lab at Berkeley Artificial Intelligence Research

Undergraduate Student Researcher

Berkeley, CA

Jun 2021 - Aug 2022

- Advisors: Kimin Lee, Aditi Raghunathan, Pieter Abbeel.
- A simple and efficient exploration method based on epistemic uncertainty from human feedback, and improved both sample- and feedback-efficiency of preference-based RL algorithms in complex robotic manipulation tasks.
- An embodied learning framework based on active exploration for visual representations and perception tasks in complex 3D environments. Proposed to learn visual representations by incorporating action supervisions from agent movements.

Publications

- **ALP: Action-Aware Embodied Learning for Perception**

Xinran Liang, Anthony Han, Wilson Yan, Aditi Raghunathan, Pieter Abbeel

Under Review at International Conference on Computer Vision (ICCV), 2023

- **Reward Uncertainty for Exploration in Preference-based Reinforcement Learning**

Xinran Liang, Katherine Shu, Kimin Lee*, Pieter Abbeel*

International Conference of Learning Representations (ICLR), 2022

Awards and Honors

May 2022

Department Citation (1 student in graduating class of Data Science)

Berkeley

May 2022

Outstanding Graduate Student Instructor Award (<10% nomination)

Berkeley

May 2022

Percy Lionel Davis Award for Excellence in Scholarship in Mathematics

Berkeley

Teaching Experience

University of California, Berkeley

Undergraduate Student Instructor

Berkeley, CA

Jan 2020 - May 2022

- Supervisor: Prof. Ani Adhikari
- Probability for Data Science (Data 140). Head uGSI: Spring 2021, Fall 2021, and Spring 2022; uGSI: Fall 2020; Tutor: Spring 2020.
- Principles and Techniques of Data Science (Data 100). uGSI: Summer 2020.
- Responsible for content creations and pedagogy, teaching sections, staff management, office hours, and communications with students.