

KARA LIU

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EDUCATION

Stanford University

2022 - Present

Ph.D. in Computer Science, AI

GPA: 4.00/4.00

Advised by Professor Russ Altman. My research focuses on developing ML methods for tackling biases in healthcare data.

University of California, Berkeley

2016 - 2020

B.A. in Computer Science

GPA: 3.98/4.00

Relevant coursework: Probabilistic Graphical Models, Algorithmic Fairness, Applied Causal Inference Powered by ML and AI, Linear Algebra, Machine Structures, Data Structures, Deep Reinforcement Learning, Probability and Random Processes, Real Analysis, Machine Learning, Deep Unsupervised Learning, Artificial Intelligence*

PUBLICATIONS

Kara Liu, Russ Altman, Vasilis Syrgkanis. “Detecting clinician implicit biases in diagnoses using proximal causal inference.” At *Pacific Symposium on Biocomputing (PSB)*, 2025.

Kara Liu, Russ Altman. “Conditional Generative Models for Synthetic Tabular Data: Applications for Precision Medicine and Diverse Representations.” Published in *Annual Reviews of Biomedical Data Science*, 2025.

Srinivasan Sivanandan, Max Salick, Bobby Leitmann, **Kara Liu**, Mohammad Sultan, Navpreet Ranu, Cynthia Vivian Hao, Owen Chen, John Bisognano, Eric Lubeck, Ajamete Kaykas, Eilon Sharon, Ci Chu. “Machine Learning enabled Pooled Optical Screening in Human Lung Cancer Cells.” At *Neural Information Processing Systems (NeurIPS)* workshop, 2022.

Panagiotis Stanitsas*, **Kara Liu***, Lorn Kategaya, Kelly Haston, Alicia Lee, Shahin Mohammadi, Haoyang Zheng, Francesco Paolo Casale, Navpreet Ranu, Ahmed Sandakli, Pooja Prasad, Owen Chen, Anne Baldwin, Albert Kim, Eilon Sharon, Ajamete Kaykas, Daphne Koller, Matthew Albert. “Machine Learning Methods for Detailed Characterization of TGF β -induced Signatures in a Large iPSC-derived Hepatic Stellate Cell Cohort.” At the *European Association for the Study of the Liver (EASL)*, 2022. Published in the *Journal of Hepatology*, 2022.

Kara Liu*, Thanard Kurutach*, Aviv Tamar, Pieter Abbeel. “Hallucinative Topological Memory for Zero-Shot Visual Planning.” At the *International Conference on Learning Representations (ICLR)*, 2020.

Angelina Wang, Thanard Kurutach, **Kara Liu**, Aviv Tamar, Pieter Abbeel. “Learning Robotic Manipulation through Visual Planning and Acting.” At *Robotics: Science and Systems (RSS)*, 2019.

AWARDS & HONORS

<i>Google PhD Fellowship</i>	2024
<i>Stanford Bio-X Fellowship</i>	2024
<i>UC Berkeley B.A. with Highest Distinction (summa cum laude)</i>	2020
<i>NSF GRFP Honorable Mention</i>	2020
<i>UC Berkeley EECS Honors Degree Program</i>	2018 - 2020
<i>UC Berkeley Leadership Award</i>	2016, 2018

EXPERIENCE

insitro: ML Engineer III 2020 - 2022
I established a disease-based axis using a novel unsupervised ML method on microscopy images as part of a multi-million dollar (up-to-one-billion valued) contract investigating liver disease.

Berkeley Artificial Intelligence Research (BAIR) Lab: Undergraduate Researcher 2018 - 2020
Advised by Professor Pieter Abbeel and Aviv Tamar. My research explored the intersection of ML methods with robotics, specifically on long-horizon visual planning and representation learning.

Advanced Science Technology and Research Institute: Intern 2018
I investigated generative models and their potential impact in the security sector.

TEACHING & LEADERSHIP

Stanford Science Small Groups: Group Leader, Mentor 2024

Stanford Engineering Research Introductions: Research Mentor 2022 - Present

University of California, Berkeley: Teaching Assistant, CS 189 Machine Learning 2019 - 2020

Medical Technologies at Berkeley: ML Instructor, Project Lead 2019