Logan Mondal Bhamidipaty

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EDUCATION

Stanford University Expected Graduation: June 2025
M.S. in Computer Science, Artificial Intelligence GPA: 4.0+
B.S. in Mathematics GPA: 3.8

Coursework: (Graduate) Reinforcement Learning, Sequential Decision Making, Algorithmic Game Theory, NLP, Causal ML, Convex Optimization, Stochastic Processes, Linear Algebra; (Undergraduate) Graph Theory, Combinatorics, Market Design, Algorithms, Computer Systems

Oxford University (Stanford Bing Overseas Studies Program) Michaelmas 2023
Coursework: Graph Neural Networks, Generative Drug Discovery

ACADEMIC EXPERIENCE

Research Assistant, AI for Human Impact (AI4HI) Sep 2024 – Present
Advised by Emma Brunskill

- Working on data-efficient methods for LLM alignment.

Research Assistant, Stanford Intelligent Systems Laboratory (SISL) Jan 2024 – Present
Advised by Mykel Kochenderfer and Trevor Hastie

- Developed open-source Julia packages for exponential family PCA and belief compression.

Research Assistant, Stanford Intelligence through Robotics at Scale (IRIS) June 2023 – Present
Advised by Chelsea Finn

- Generalizing meta-RL algorithms for POMDPs.
- Scaling RLHF methods for VLMs in multi-task, language-conditioned learning.

Research Assistant, Stanford Brains in Silicon June 2022 – Jan 2024
Advised by Kwabena Boahen

- Published a platform for dynamical systems identification inspired by OpenAI's Gym.

Research and Teaching Assistant, Stanford Department of Economics Sep 2022 – Jun 2023
Advised by Paul Milgrom

- Wrote a 13-chapter course reader for ECON 136 (undergraduate market design) with theorems, exposition, and interactive exercises.
- First non-PhD TA for market design: taught section, held office hours, graded research papers.

Research Assistant, VMware Women's Leadership Innovation Lab Jan 2022 – Nov 2022

- Used sentiment analysis to study corporate DEI initiatives of Fortune 500 companies.

PROFESSIONAL EXPERIENCE

Economic Consultant, Auctionomics February 2023 – Present

- Collaborated with Nobel laureate Paul Milgrom and other leading economists to conduct theoretical, empirical, and simulation analyses of complex markets and high-stakes auctions

NLP Research Intern, Claudius Legal Intelligence Nov 2021 – May 2022

- Worked on cataloging bias in legal Q&A systems using transformers.

Special Collections Assistant, Stanford East Asia Library Feb 2021 – Apr 2021

- Created a bilingual database of 700+ Chinese publications from the Mao period.

PAPERS

Logan Bhamidipaty*, Mykel Kochenderfer, Trevor Hastie. ExpFamilyPCA.jl: A Julia Package for Exponential Family Principal Component Analysis. *Journal of Open Source Software, 2024. [Submitted]*

Logan Bhamidipaty*, Mykel Kochenderfer. CompressedBeliefMDPs.jl: A Julia Package for Solving Large POMDPs with Belief Compression. *Journal of Open Source Software, 2024. [In Review]*

Annie Xie*, **Logan Bhamidipaty***, Evan Zheran Liu, Joey Hong, Sergey Levine, Chelsea Finn. Learning to Explore in POMDPs with Informational Rewards. *ICML, 2024.*

Logan Bhamidipaty*, Tommy Bruzzese*, Caryn Tran*, Rami Ratl Mrad, Maxinder S. Kanwal. DynaDojo: An Extensible Platform for Benchmarking Sample Efficiency in Dynamical System Identification. *NeurIPS, 2023.*

SELECTED AWARDS

Jun 2023

Best Project Runner-Up, CS 224R (Deep Reinforcement Learning) Final Project — Jun 2023
Top Student Contributor, CS 109 (Intro to Probability for CS) Course Reader — Oct 2021 – Oct 2023
National Security Language Initiative for Youth, U.S. Department of State — Sep 2019 – Jan 2020

SELECTED PERSONAL PROJECTS

Math Showcase Website

- Created 30+ interactive visualizations to democratize advanced math on topics including Heron's formula, phase portraits, butterfly networks, Box-Muller transforms, Voronoi diagrams, and more.

Image Processing Pipeline

- Implemented image processing techniques (e.g., gamma correction, Otsu thresholding) from scratch without advanced APIs.

SKILLS Python, C/C++, TensorFlow, PyTorch, TensorFlow, MuJoCo, Gym, Pandas, R, Java, MATLAB

LANGUAGES English (native), Chinese (professional proficiency), Japanese (elementary)