HARRY BENDEKGEY

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EDUCATION	
Ph.D., Computer Science University of California, Irvine "Integrating Neural Networks and Graphical Models for Efficie Advised by Erik B. Sudderth	May 2025 GPA: 4.0 ent Inference in Continuous Time Series"
B.A., Computer Science and Mathematics (Double M Pomona College	May 2019 GPA: 3.97
AREAS OF SPECIALIZATION	
• Optimization + Constrained Optimization • Deep	Generative Modeling
• Fairness + Interpretability in Deep Learning • Varia	ational Inference
TEACHING	
 Instructor, University of California, Irvine ICS 6N: Computational Linear Algebra Taught a linear algebra course required for computer science a Designed my own course materials, assignments and examinate 	Summer 2023 (10-Week Session) and data science majors. tions, and graded a class of 21 students.
Teaching Assistant , University of California, Irvine CS 177: Applications of Probability in CS Led discussion (lab) sessions with up to 40 students, designed ex (Canvas and Piazza) and held weekly office hours.	Fall 2020, Winter 2024, Fall 2024 xams, managed virtual discussion forums
 Teaching Assistant, Mentor and Grader, Pomona Colleg Held weekly office hours, graded, and managed virtual discuss CS54: Discrete Math and Functional Programming (Head TA CS105: Computer Systems CS52: Fundamentals of Computer Science (Head TA) CS51: Introduction to Computer Science MATH103: Combinatorial Mathematics MATH152: Statistical Theory MATH60: Linear Algebra 	ge bion forums.) Spring 2019 Fall 2018 Spring 2017, Spring 2018 Spring 2016, Fall 2016 Spring 2017, Spring 2018, Spring 2019 Fall 2018 Fall 2018

Conference

- In Submission: Learning to Infer Fast by Attending to Sparse Temporal Observations. H Bendekgey, M Motamed, D Sujono, E Sudderth. Submitted to AISTATS 2025.
- Unbiased Learning of Deep Generative Models with Structured Discrete Representations. H Bendekgey, G Hope, E Sudderth. NeurIPS 2023
- Scalable & Stable Surrogates for Flexible Classifiers with Fairness Constraints.
 H Bendekgey, E Sudderth. NeurIPS 2021

Journal

- A Systematic Literature Review of Undergraduate Data Science Education Research M Dogucu, S Demirci, **H Bendekgey**, FZ Ricci, CM Medina. Journal of Statistics and Data Science Education, 2025.
- Scaling Study of Diffusion in Dynamic Crowded Spaces.
 H Bendekgey, G Huber, and D Yllanes. Journal of Physics A: Mathematical and Theoretical, 2024
- In Submission: Third-Order Photon Correlations Extract Nanocrystal Multiexciton Properties in Solution.
 J Horowitz, D Berkinsky, H Bendekgey, O Tye, T Šverko, K Shulenberger, M Bawendi.

TALKS

Building Data Science Education Research Plans for Teacher-Scholars Breakout Session: Electronic Conference on Teaching Statistics (eCOTS) Selected as "hot topic of the day" at eCOTS.	June 2024
Why We Use Reverse-Mode Autodiff (And the Time I Didn't) Invited Talk: UC Irvine DataLab Seminar	Feb 2024
Unbiased Learning of Deep Generative Models with Structured Discrete Representations Invited Talk: Pomona College Computer Science Colloquium Series	Nov 2023

UC IRVINE DEPARTMENT SERVICE

Student Member of the AI Faculty Search Committee	2021-2023
I was one of 4-6 Ph.D. students who interviewed faculty candidates with a focus on their res	search, their
advising styles, and their interactions with graduate students.	

HPI@UCI Workshop Organizer Apr 2024 I coordinated talks and activities for 30 workshop attendees from UC Irvine and the Hasso Plattner Institute in Germany.

HPI@UCI Reading Group Organizer

I organized a cross-lab reading group of 15 student fellows across machine learning specializations for the 2021-2022 academic year.

2021-2022

PROFESSIONAL EXPERIENCE

 Research Intern, Chan-Zuckerberg Biohub Worked with the theory group on two projects touching biology, physics, and statisti Explored the ability of (MC)³ to explore the space of phylogenetic trees, and Discovered a new power law for modeling diffusion in crowded dynamic spaces. 	Summer 2019 cs:
 Engineering Intern, QuanticMind Created an API for employees to access databases without requiring access credentia Led meetings with colleagues to generate common use cases to be addressed by the A 	Summer 2017 ls, and API.
 Intern, GradGuru Designed user experience for app to help community college students track administrate Met weekly with community college administrators across California to customize the 	Summer 2016 tive requirements. e app.
AWARDS AND HONORS	
UC Irvine Awards	
· Hasso Plattner Institute Fellowship	2021-2023
\cdot Enhanced Computer Science Department Excellence Fellowship	2019-2020
· Dean's Award	2019
Pomona College Awards	
· Paul B. Yale Computer Science Prize	2019
· Phi Beta Kappa Award	2019
· Phi Beta Kappa Member	2018
· Kenneth Cooke Summer Research Fellowship	2018

2018

2017

- $\cdot\,$ Bruce Jay Levy Prize in Mathematics
- $\cdot\,$ Llewellyn Bix
by Mathematics Prize