

Harry Bendekgey

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Education	Ph.D. Candidate, University of California, Irvine Fall 2019-present Advised by Erik Sudderth. Advanced to Candidacy Spring 2022. GPA: 4.0 Relevant Coursework: Probabilistic Graphical Models, Probabilistic Learning, Deep Generative Models, Stochastic Processes
	B.A., Pomona College Graduated Spring 2019 Computer Science and Mathematics (Double Major) GPA: 3.97 Relevant Coursework: Combinatorial Optimization, Computational Biology, Bayesian Statistics, Computational Statistics, Statistical Linear Models Natural Language Processing, Topics in Topology and Geometry
Research Experience	Intern Summer 2019 Chan Zuckerberg Biohub San Francisco Work with the theory group on two projects touching biology, physics, and statistics: <ul style="list-style-type: none">◦ Investigating the ability of (MC)³ to explore the space of phylogenetic trees, and◦ Discovering a new power law for modeling diffusion in crowded dynamic spaces
	Research Fellow Fall 2018 Computer Science Department Pomona College Designed a novel approach for understanding the landscape of personas across games; Scraped and cleaned data from online <i>Dominion</i> logs to visualize player strategies.
	Research Fellow Summer 2018 Kenneth Cooke Research Fellowship Pomona College Researched the mathematical models underlying state-of-the-art election forecasting; Implemented adjustable forecasts for the 2018 midterm election based on these models.
	Guest Lecturer Fall 2018 CS 151: Artificial Intelligence Pomona College MATH 154: Computational Statistics Gave guest lectures to upper-division undergraduate elective courses on: Artificial Intelligence: Monte Carlo Tree Search and the Multi-Armed Bandit Problem. Computational Statistics: Markov Chain Monte Carlo for Metropolis-Hastings.
Teaching Experience	Teaching Assistant Computer Science Department Pomona College <ul style="list-style-type: none">◦ Discrete Math and Functional Programming (Head TA) Spring 2019◦ Computer Systems Fall 2018◦ Fundamentals of Computer Science (Head TA) Spring 2017, Spring 2018◦ Introduction to Computer Science Spring 2016-Fall 2016
	Mentor and Grader Mathematics Department Pomona College <ul style="list-style-type: none">◦ Combinatorial Mathematics Spring 2017, Spring 2018, Spring 2019◦ Linear Algebra Fall 2018◦ Statistical Theory Fall 2018
	Engineering Intern Summer 2017 QuanticMind Created an API for employees to access databases without requiring access credentials; Led meetings with colleagues to generate common use cases to be addressed by API.

Publications	Scalable & Stable Surrogates for Flexible Classifiers with Fairness Constraints. H Bendekgey , E Sudderth. NeurIPS 2021	
	Scaling Study of Diffusion in Dynamic Crowded Spaces. H Bendekgey , G Huber, D Yllanes, L Yan. APS March Meeting 2022	
	Clustering Player Strategies from Variable-Length Game Logs in <i>Dominion</i> . H Bendekgey , AAAI Workshop on Knowledge Extraction from Games (KEG), 2019.	
	Consistency and Reproducibility in U.S. House of Representatives Forecasts. H Bendekgey , arXiv preprint arXiv:1811.12466, 2018	
Programming Languages	Proficient with R, C, Python, Java, \LaTeX ; Familiar with: SQL, C++, JavaScript.	
UC Irvine Awards	Hasso Plattner Institute Fellowship 2021-2023 Provides 3 years of full Ph.D funding for work on adaptive, safe and human-centered artificial intelligence.	
	Enhanced Computer Science Department Excellence Fellowship 2019 Allows first-year Ph.D students to engage sooner and more deeply with research by dispensing with teaching assistant requirement.	
	Dean's Award 2019 Extra first-year grant for outstanding research potential.	
Pomona College Awards	Paul B. Yale Computer Science Prize 2019 Awarded annually to an outstanding senior majoring in Computer Science.	
	Phi Beta Kappa Award 2019 Awarded to a senior for high quality of scholarship and promise of future distinction.	
	Kenneth Cooke Summer Research Fellowship 2018 Grant for summer research in an area of applied mathematics or statistics.	
	Bruce Jay Levy Prize in Mathematics 2018 Awarded annually to a student for excellence in the field of mathematics.	
	Llewellyn Bixby Mathematics Prize 2017 Awarded annually to a sophomore for excellence in the second year of mathematics.	
National Awards	Phi Beta Kappa Member Elected Junior year, 2018 The oldest honor society in the country; at eligible schools, 2% of Juniors are elected.	
	National Merit Scholar 2015 College scholarship based on performance on the Practice SAT.	
	Caroline D. Bradley Scholar 2011-2015 Merit-based, four-year high school scholarship granted to 11 students nationally.	