Harry Bendekgey

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Education	**University of California, Irvine**	Fall 2019-present
	Pursuing a Ph.D. in Computer Science advised by Erik Sudderth.	GPA: 4.0
	Relevant Coursework: Probabilistic Graphical Models,	
	Probabilistic Learning, Deep Generative Models, Stochastic Processes	
	Pomona College	Spring 2019
	Bachelor of Arts in 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-present
	Chan Zuckerberg Biohub	San Francisco
	Work with the theory group on two projects touching biology, physics, and statistics:	
	$\circ$ Investigating the ability of $(MC)^3$ to explore the space of phylogenetic trees, and	
	$\circ$ 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 *Dominion* 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.	

Teaching Experience	**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 Assistant	
	Computer Science Department	Pomona College
	$\circ$ Discrete Math and Functional Programming (Head TA)	Fall 2019
	$\circ$ Computer Systems	Fall 2018
	$\circ$ Fundamentals of Computer Science (Head TA)	Spring 2017-Spring 2018
	$\circ$ Introduction to Computer Science	Spring 2016-Fall 2016
	Mentor and Grader	
	Mathematics Department	Pomona College
	$\circ$ Linear Algebra	Fall 2018
	$\circ$ Statistical Theory	Fall 2018
	$\circ$ Combinatorial Mathematics	Spring 2017-Spring 2018

Technical Experience	**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	*In review:* Scaling Study of Diffusion in Dynamic Crowded Spaces. **H Bendekgey**, G Huber, D Yllanes, L Yan. *In review:* Scalable & Stable Surrogates for Flexible Classifiers with Fairness Constraints. **H Bendekgey**, E Sudderth. Clustering Player Strategies from Variable-Length Game Logs in *Dominion.* **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.