# Harry Bendekgey

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| **Education** | **University of California, Irvine** | Fall 2019-present |
| | Pursuing a Ph.D. in Computer Science | GPA: 4.0 |
| | Relevant Coursework: Probabilistic Graphical Models, | |
| | Probabilistic Learning, Deep Generative Models, Stochastic Processes | |
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| | **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 | |

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| **Research Experience** | **Intern** | Summer 2019-present |
| | Chan Zuckerberg Biohub | San Francisco |
| | Work with the theory group on two projects touching biology, physics, and statistics: | |
| | ○ 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 | |
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| | **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. | |
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| | **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. | |

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

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| **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. | |

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| **Publications** | 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 |
| | *In review:* Scalable Bounds for Flexible Classifiers with Group Fairness. **H Bendekgey**, E Sudderth. |
| | *In preparation:* Diffusion in Dynamic Crowded Spaces. **H Bendekgey**, G Huber, D Yllanes, L Yan. |
| **Programming Languages** | Proficient with R, C, Python, Java, LATEX; Familiar with: SQL, C++, Scala, JavaScript. |

**UC Irvine Awards**

**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.