# Henry Bendekgey

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Education

Pomona College, Claremont, CA

Expected Spring 2019

Bachelor of Arts in Computer Science and Mathematics (Double Major)

GPA: 3.99

Relevant Coursework: Computational Statistics, Statistical Linear Models, Bayesian Statistics, Combinatorial Optimization, Computational Biology.

Anticipated 2019: Natural Language Processing, Topology, Advanced Linear Algebra.

Aquincum Institute of Technology, Budapest, Hungary

Fall 2017

Study Abroad

Research Experience 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

o Computer Systems

Fall 2018

• Fundamentals of Computer Science (Head TA)

ran 2016

o Introduction to Computer Science

Spring 2017-Spring 2018 Spring 2016-Fall 2016

Mentor and Grader

Mathematics Department

Pomona College

Linear AlgebraStatistical Theory

Fall 2018 Fall 2018

• 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

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 preparation: Bad Data: A Survey. H Bendekgey.

Programming Languages

Proficient with R, Python, Java, LATEX;

Familiar with: SQL, C, C++, Scala, JavaScript.

**Projects** 

#### Midterms Forecasting Website

midterms.shinyapps.io/2018

A fully interactive website to understand the differences in popular election forecasting methods, and to see how changing assumptions or parameters affects the final forecast.

#### Spotify Data Science Workshop

github.com/hbendekgey/Spotify-Workshop

Detailed step-by-step instructions for how to use Spotify's API to get audio features of one's own music library, and then practice common machine learning techniques in Python on that data.

#### Cellular Automata

varsncrafts.com/#/crafts/react/Cellular%20Automaton

Implementation of a generic cellular automaton with modifiable rule space, to understand how emergent properties can manifest in seemingly simple systems.

**National Awards** 

### Phi Beta Kappa Member

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.

Julian C. Stanley Study of Exceptional Talent, Mathematics 2010-2015 National award for students who score 700 or higher on the Math SAT before age 13.

Pomona College Awards

## 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.

#### Pomona College Scholar

2015-2018

Dean's list, awarded each semester to top 25% of each class based on GPA.

Extracurricular Activities

## Model United Nations

2015-2017

Served as organization's Secretary-General for 2016-2017 academic year; Received best delegate award at TrojanMUN 2016 and WUMUNC 2017.

Mock Trial 2016-2018

Served as a witness on Pomona College's primary competition team;

Received best witness award at Mocktopia 2017.