

Daniel Kunin

daniel-kunin.com • kunin@stanford.edu • (617) 947-5992

Education

Stanford University

M.S. Computational and Mathematical Engineering
Data Science Track

Stanford, CA
Expected Graduation June 2019

Brown University

Sc.B. Applied Mathematics, A.B. Computational Biology
magna cum laude (GPA 3.93), Sigma Xi

Providence, RI
Sep 2013 - May 2017

Graduate Coursework

Mathematics: *Numerical Linear Algebra, Data Mining and Analysis, Theories of Deep Learning*

Computer Science: *Machine Learning*

Undergraduate Coursework

Mathematics: *Calculus, Linear Algebra, Differential Equations, Statistical Analysis, Bayesian Statistics, Information Theory, Graph Theory and Network Science, Real Analysis, Recent Applications in Probability and Statistics*

Computer Science: *Imperative/Object Oriented Programming, Functional Programming, Systems Programming, Asymptotic Analysis and Data Structures, Distributed Systems*

Work/Research Experience

Undergraduate Researcher for Chip Lawrence Lab

-Helped rewrite a HMM alignment software for paleoclimate data in Matlab
-Designed and developed a web platform for using the HMM alignment software

Providence, RI
Jan 2017 - June 2017

Front-End Web Developer

-Used D3.js to create interactive visualizations of probability and statistics concepts
-Designed and developed a web platform with nearly two million page views and users from nearly every country in the world: *seeingtheory.io*

Providence, RI
May 2016 - Dec 2016

Brown-Stanford iGEM team at NASA Ames

-Genetically engineered metabolic pathway for styrene monomer in *E.coli*
-Used CRISPR/Cas9 system to increase transformation efficiency

Mountain View, CA
May 2015 - Sep 2015

Undergraduate TA for An Integrated Introduction (CSCI 018)

-Imperative and object oriented programming in Java and Scala
-Covers fundamental data structures and algorithms

Providence, RI
Jan 2017 - May 2017

Undergraduate TA for Introduction to Scientific Computing (CSCI 004)

-Held weekly problem sessions on Matlab programming

Providence, RI
Jan 2016 - May 2016

Dean of the College Tutor of Organic Chemistry I & II

-Held weekly group and individual tutoring sessions in organic chemistry

Providence, RI
Jan 2015 - Dec 2015

HHMI SEA-PHAGES Program

-Undergraduate research course designed by Howard Hughes Medical Institute
-Focuses on microbiology lab techniques and genome annotation/analysis

Providence, RI
Sep 2013 - May 2014

Awards

Citadel Data Open Championship

-Investigated the effect of education, demographics, and economics on social mobility
- Presented report to a panel of experts and placed in the top five teams.

New York City, NY
November 2017

Citadel Data Open at Berkeley

-Analyzed how Airbnb affects the local renting market in San Francisco
-First place winner; \$20,000 award prize; One of 20 teams invited to compete in The Data Open Championship for a \$100,000 prize.

Berkeley, CA
September 2017

Harvey A. Baker Fellowship

-Awarded annually to outstanding members of the graduating class to aid them in undertaking graduate study at the university of their choice

Providence, RI
May 2017

COMAP Interdisciplinary Contest In Modeling

-Developed a queuing model for lines and servicing at TSA security
-Outstanding Winner; one of fourteen teams that received this distinction out of 8085 teams that participated from eight countries

Providence, RI
April 2017

Brown Mathematical Contest for Modeling	Providence, RI
-Developed a model and algorithm for optimizing the value of Pokemon caught	November 2016
-Outstanding Winner; one of two teams sponsored by Division of Applied Math to compete in the 2017 COMAP mathematical modeling competition	
Brown University Royce Fellowship	Providence, RI
-Designed and developed a web platform for learning probability and statistics	April 2016
-Lifetime membership in the Society of Royce Fellows	
Brown Mathematical Contest for Modeling	Providence, RI
-Developed a model for viral population growth and treatment.	November 2015
-Finalist Winner; cash prize	
International Genetically Engineered Machines Competition	Boston, MA
-Undergraduate Winner: Best Manufacturing Project	September 2015
-Undergraduate Nominated: Best New Composite Part, Best Part Collection, Best Poster	

Media

Conduit Magazine	link
-Wrote article for Brown's Department of Computer Science magazine on Seeing Theory	December 2017
Brown Alumni Magazine	link
-Featured as one of eight seniors from the undergraduate Brown University class of 2017	May 2017
WCAI: Local NPR for the Cape, Coast & Islands	link
-Interviewed with a senior science writer from Five Thirty Eight about statistics education	March 2017
Fast Co Design	link
-Interviewed about Seeing Theory, which was featured as their online Infographic of the Day	March 2017

Languages/Interests

Programming Languages: Python, Matlab, Julia, R, C/C++, Java, Javascript/HTML/CSS

Personal Accomplishments:

- Paddled 600 miles through the Arctic in a team of seven (Elk-Thelon River)
- Led a 1000 km hike with two friends through Israel (Shvil Israel)
- Volunteered for five months at a free health clinic for Burmese migrants in Thailand (Mae Tao Clinic)
- Solo hiked 650 miles through California and Oregon (Pacific Crest Trail)

Other interests: Data Visualizations, Cooking, Hiking, Home Brewing, Travel