

Daniel Kunin

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Education

Stanford University

M.S. Computational and Mathematical Engineering

Palo Alto, 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

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, Version Control, Distributed Systems*

Biology/Chemistry: *Organic Chemistry, Biochemistry, Computational Biology, Genetics, Microbiology, Physiology*

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 statistical analysis concepts
- Designed and developed a web platform with over one million page views and users from nearly every country in the world: students.brown.edu/seeing-theory

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

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

- Developed a model and algorithm for optimizing the value of Pokemon caught
- Outstanding Winner; one of two teams sponsored by Division of Applied Math to compete in the 2017 COMAP mathematical modeling competition

Providence, RI

November 2016

Brown University Royce Fellowship

- Designed and developed a web platform for learning probability and statistics
- Lifetime membership in the Society of Royce Fellows

Providence, RI

April 2016

Brown Mathematical Contest for Modeling

- Developed a model for viral population growth and treatment.
- Finalist Winner; cash prize

Providence, RI

November 2015

Languages/Interests

Programming Languages: Javascript, Python, C++, Java, Scala, Go, Matlab, HTML/CSS, OCaml, LaTeX

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