Daniel Kunin

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Education

Stanford University — **Stanford, CA**
M.S. Computational and Mathematical Engineering — Expected Graduation June 2019
Data Science Track

Brown University — **Providence, RI**
Sc.B. Applied Mathematics, A.B. Computational Biology — Sep 2013 - May 2017
magna cum laude (GPA 3.93), Sigma Xi

Graduate Coursework

Mathematics: *Introduction to Statistical Inference, Randomized Algorithms and Probabilistic Analysis*
Computer Science: *Software Development for Engineers*

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 — **Providence, RI**
-Helped rewrite a HMM alignment software for paleoclimate data in Matlab — Jan 2017 - June 2017
-Designed and developed a web platform for using the HMM alignment software

Front-End Web Developer — **Providence, RI**
-Used D3.js to create interactive visualizations of probability and statistics concepts — May 2016 - Dec 2016
-Designed and developed a web platform with nearly two million page views and users from nearly every country in the world: *seeingtheory.io*

Brown-Stanford iGEM team at NASA Ames — **Mountain View, CA**
-Genetically engineered metabolic pathway for styrene monomer in E.*coli* — May 2015 - Sep 2015
-Used CRISPR/Cas9 system to increase transformation efficiency

Undergraduate TA for An Integrated Introduction (CSCI 018) — **Providence, RI**
-Imperative and object oriented programming in Java and Scala — Jan 2017 - May 2017
-Covers fundamental data structures and algorithms

Undergraduate TA for Introduction to Scientific Computing (CSCI 004) — **Providence, RI**
-Held weekly problem sessions on Matlab programming — Jan 2016 - May 2016

Awards

Citadel Data Open at Berkeley — **Berkeley, CA**
-Analyzed how Airbnb affects the local renting market in San Fransisco — September 2017
-First place winner; $20,000 award prize; One of 18 teams invited to compete in The Data Open competition with a $100,000 prize.

Harvey A. Baker Fellowship — **Providence, RI**
-Awarded annually to outstanding members of the graduating class to aid them in undertaking graduate study at the university of their choice — May 2017

COMAP Interdisciplinary Contest In Modeling — **Providence, RI**
-Developed a queuing model for lines and servicing at TSA security — April 2017
-Outstanding Winner; one of fourteen teams that received this distinction out of 8085 teams that participated from eight countries

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 Mathematical Contest for Modeling — **Providence, RI**
-Developed a model for viral population growth and treatment. — November 2015
-Finalist Winner; cash prize