

CLAYTON SANFORD

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EDUCATION

Brown University, Providence, RI

Expected Graduation: May 2018

Relevant Coursework: *Abstract Algebra; Linear Algebra; Introduction to Software Engineering; Discrete Structures and Probability; Differential Equations; Accelerated Introduction to Computer Science; Models of Computation; Topics in Chaotic Dynamics; Analysis: Functions of One Variable; Probability*

GPA: 3.9

Soquel High School, Soquel, CA

Graduating Class of 2014

Significant Awards: *Valedictorian, National AP Scholar, Departmental Honors in Science and Social Sciences*

WORK EXPERIENCE

Brown University, Undergraduate Teaching Assistant

September 2015 - Present

- Assisted with CSCI 190 (Accelerated Introduction to Computer Science), CSCI 220 (Discrete Structures and Probability), and CSCI 1010 (Theory of Computation).
- Tutored students during office hours, graded homework assignments, created problem sets, and responded to students' emails.

UC Santa Cruz Bioinformatics, Software Intern

June 2013 - August 2013

May 2015 - August 2015

- Developed software that moves large genome files from Amazon's S3 storage to a distributed format on computer clusters of virtual machines from Amazon's EC2 services.
- Used Scala to add functionality to upload to S3, to allow for inputs and output data to be either files or directories, and to create unit and integration tests.
- Investigated the link between the RANK1 gene and survival likelihood of breast cancer.
- Performed statistical analyses using Python and the UCSC Cancer Genomics Browser.

AWARDS

Interdisciplinary Contest in Modeling, Outstanding Winner

February 2016

- Selected as one of the top five papers of over 3000 submissions.
- In a team of three, designed a mathematical model for water scarcity in India, and applied the model to real-world data using Matlab.
- Wrote a twenty page paper discussing our model and methods of addressing water scarcity.

Boy Scouts of America, Eagle Scout

August 2013

LEADERSHIP EXPERIENCE

Applied Math Department of Undergraduates, Secretary, Treasurer

January 2015 - Present

- Planned and ran events for applied math concentrators including math contests, professor lectures, and information sessions for potential concentrators.

Brown Outing Club, President

November 2014 - Present

- Organized transportation, obtained supplies, coordinated participants, and planned routes for outdoor activities and trips.
- Oversaw leader training, recruited new board members, and managed club logistics and a budget of \$27,000.
- Planned large-scale day trips for over 40 people, which involved significant logistical planning and delegation of tasks.

Swearer Tutoring and Enrichment in Math and Sciences, Volunteer Representative

January 2015 - May 2016

- Involved in both after school tutoring for students behind on work and in class tutoring assisting a teacher in running her class and helping students with assignments and labs.
- As a volunteer representative, mentored other tutors and helped lead the organization as a whole.

ADDITIONAL SKILLS

Programming Languages: Java, Scala, Python, Matlab, Javascript, HTML, CSS, C++

Languages: English (native), Spanish (intermediate)