

JONATHAN KING

Education

University of California, Berkeley

B.A. Computer Science, B.S. Bioengineering *Expected May 2017*

3.46 Cumulative GPA

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Skills and Coursework

- Python, Java, Applescript, C, Bash
- PCR, gel electrophoresis
- DNA isolation and library prep
- Molecular Biology
- Biophysical Chemistry
- Data Structures
- Algorithms for Computational Biology
- Discrete Math, Probability Theory
- Linear Algebra

Software Development Experience

Bioinformatics Intern

May 2015 - Present

Plexxikon Inc., Berkeley CA (contracted through Lab Support)

- Developed novel algorithms to detect structural variants in patients with acute myeloid leukemia (AML).
- Utilized Illumina's BaseSpace cloud computing platform to run application remotely.
- Engineered scripts for analysis of other biological experiments using Next Generation Sequencing data.
- Provided company scientists with complete documentation of original algorithms and scripts.

High-Frequency Bitcoin Trading Application

Manages user balance by intelligently buying and selling Bitcoin currency on several markets.

- Implemented web scraping methods for determining market sentiment via Google News and Twitter feeds.

"Finals Finder" Computer Application

Calculates term grades, test scores, cutoffs for high school students.

- Adopted by high school - now included on all school computers.
- Presented with school award for "Outstanding Achievement in Technology and Media Arts".

Code-encrypting Computer Application

Simulates "Enigma" message encrypting machine used by the German military in World War II.

- Collaborated with a partner to create historically accurate digital code encryptor.
- Anticipated user needs, responds to varied input.

Laboratory Experience

Research Assistant, Zilberman Lab

Apr 2014 - Sep 2014

University of California, Berkeley

- Studied epigenetic role of DNA methylation in the Arabidopsis plant.
- Screened 200+ plants for genetic mutations through PCR / gel electrophoresis.
- Completed bisulfite conversion experiments to determine the location of methylation in the genome.
- Performed computational analysis of next-gen sequencing data for traits in 5 genes.

Other Work Experience

Tutor - Computer Science, Math, Chemistry, Physics

Dec 2014 - Present

InstaEdu.com, Online Tutoring Service

- Coached over 30 high school and college students in STEM curriculum.
- Developed weekly lesson plans for video conferencing students.

"Tech Camp" Assistant

Jun 2011 - Aug 2012

Moreau Catholic High School, Hayward, CA

- Facilitated summer class at my high school for over 100 incoming students each year.
- Demonstrated techniques to use with school computers.
- Directed educational presentations throughout the course.

Leadership and Activities

Berkeley Biomedical Engineering Society

2013 - Present

- Collaborated with Academic committee to plan monthly events for the Bioengineering community.
- Organized and participated in research fair, professor socials, career exploration.

Senior Class President

2011 - 2012

- Coordinated Spirit Week, school rallies, activities, and event planning for the Senior Ball dance for 300 guests.
- Strengthened student involvement in planning and execution of events.

Awards and Recognition

- 3 "Silver Key" Scholastic Art Awards for Photography
- "Best Picture" Award Wikimedia National Photo Competition
- AP Scholar with Distinction
- California Scholarship Federation Life Member