# **DANIEL LI**

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#### **EDUCATION**

### UNIVERSITY OF CALIFORNIA, BERKELEY

Aug 2014 – May 2017

#### B.S. Electrical Engineering and Computer Sciences

Berkeley, CA

- *Academics*: 3.6/4.0 GPA
- Coursework: Computer Science: Efficient Algorithms and Intractable Problems, Human Computer Interaction, Algorithms in Computational Biology, Structures and Interpretations of Programs (SICP), Data Structures and Algorithms, Computer Architectures | Mathematics: Integral, Differential, Vector, Multivariable, Lambda Calculi, (Partial) Differential Equations, Linear Algebra, Discrete Mathematics, Probability Theory and Statistics, (some) Algebra | Electrical Engineering & Physics: Mechanics, Electricity, Magnetism, Designing Information Devices and Systems I,II
- *Skills*: Python, Java, C, SQLite, Lisp Scheme, HTML, LaTeX, R, MIPS, Assembly, Data Analysis, Digital Signal Processing (DSP), Android Studio app development

#### LA CANADA HIGH SCHOOL

Fall 2011 - Spring 2014

- Academics: 4.7/4.0 weighted GPA, 4.0/4.0 GPA, 2310 SAT
- Summa Cum Laude, graduated in 3 years, ranked 2<sup>nd</sup> out of 400

#### RESEARCH EXPERIENCE

**Pachter Group** – *Principal Investigator: Lior Pachter* 

Fall 2015 - Present

## **Computational Biology (Mathematics and Genomics)**

Berkeley, CA

- Research in novel approaches to RNA-sequencing with the features in abundance estimation transcript annotation difficulties, differential expression
- Current investigation on the improvement of bulk cell and single cell RNA-seq analysis

Rao Group – Principal Investigator: Satish Rao

Spring 2016 – Present

### Algorithms, Theory, Optimization on Computational Biology

Berkeley, CA

- Investigate phylogenetic algorithms and optimize estimation accuracies on various trees
- Current focus on tree representation matrix distance computations

#### INDUSTRY EXPERIENCE

Factual

Summer 2016

#### Software Engineering (Machine Learning) Intern

Los Angeles, CA

• Entity resolution of databases semantic similarity, clustering, and artificial neural networks

## **PROJECTS**

## **KALLISTO – C++ | R | Python (Pachter Group)**

 Optimization of statistical likelihood model through non uniform distribution analysis for increased accurate projections onto correct subspaces

## SLEUTH - R (Pachter Group)

- Implement statistical algorithms for differential analysis for pseudo-alignment of RNA transcripts with interactive plots for real-time exploratory analysis
- Visualization of bias weights of RNA through integration of bias weights and hexamer indices

## **AWARDS AND HONORS**

MIT THINK

Spring 2014

Designed a Novel Approach to Mitigate Earthquakes

Cambridge, MA

Awarded \$2,000

**Dean's Honors** 

Spring 2016

**College of Engineering** 

Berkeley, California

Awarded to top 10% of engineering class (3.9 GPA)