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 2nd 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 through 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)