DANIEL LI

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EDUCATION

UNIVERSITY OF CALIFORNIA, BERKELEY   Aug 2014 – May 2017
B.S. Electrical Engineering and Computer Science   Berkeley, CA
- *Academics*: 3.6/4.0 GPA
- *Selected Coursework*: **Computer Science:** Efficient Algorithms and Intractable Problems, Algorithms and Uncertainty, Data Structures, Computer Architectures| **Mathematics:** Integral, Differential, Vector, Multivariable, Lambda Calculi, (Partial) Differential Equations, Linear Algebra, Discrete Mathematics, Probability Theory and Statistics, (some) Algebra | **Electrical Engineering**: Signal Processing, Circuits
- *Skills*: Python, Java, C, SQLite, Lisp – Scheme, Clojure, HTML, LaTeX, R, MIPS, Assembly, Data Analysis, Digital Signal Processing (DSP), Android Studio, Apache Spark and Hadoop

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
- Probabilistic entity resolution of databases through natural language processing
- Improved accuracy, F1 scores, RMSE, and log loss

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)