**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***: 3.5 cumulative 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
* 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

* Investigating phylogenetic algorithms
* Optimization of paths for algorithms (TBD ??)

**INDUSTRY EXPERIENCE**

**Factual** Summer 2016

**Research and Development (R&D) Intern** Los Angeles, CA

* Operating the data extraction pipeline through quality evaluation, localespecific extraction, canonicalization, and decanonicalization
* Developing, maintaining, and documenting new processes for data extraction and presentation

**PROJECTS**

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

* Novel approach decreasing analysis time of 30 million human reads in less than 3 minutes
* Optimization of statistical likelihood model through non uniform distribution analysis for more 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