Daniel Li

http://daniel-li.me
li.daniel@berkeley.edu | 949.923.8662

EDUCATION

UNIVERSITY OF CALIFORNIA, BERKELEY

B.Sc. in Electrical Engineering & Computer Science
Fall '14 - Spring '17 | Berkeley, CA
GPA: 3.6/4.0

LA CANADA HIGH SCHOOL

Fall '11 - Spring '14 | La Canada, CA
GPA: 4.7/4.0

SKILLS

PROGRAMMING

Python • Java • C • R • Lisp-Clojure • MIPS-Assembly • LaTeX

MATHEMATICS & STATISTICS

Calculus: Integral • Differential • Vector Multivariable • Lambda • (Partial) Differential Equations • Linear Algebra Probability Theory • Bayesian Inference (Some) non-Parametric Statistics • (Some) Algebra

FRAMEWORKS & MISC.

Apache Spark • Hadoop • Digital Signal Processing • Circuit and Design • Android Studio

LINKS

Github:// **RemarkablyAverage**
LinkedIn:// **danielli97**

COURSEWORK

GRADUATE

Algorithms & Uncertainty

UNDERGRADUATE

Efficient Algorithms
Computer Vision
Algorithms in Biology
Data Structures
Computer Architectures
Human Computer Interaction
Discrete Mathematics
Probability Theory
Designing Information Systems I, II
Introduction to Data Science
Structures and Interpretations of CP

RESEARCH EXPERIENCE

PACHTER GROUP | UNIVERSITY OF CALIFORNIA, BERKELEY

Research Assistant
Fall 2015 – Present | Berkeley, CA
Principal Investigator: Professor **Lior Pachter**

- Research in novel approaches to RNA-sequencing with the features in abundance estimation transcript annotation difficulties, differential expression
- Current investigation on improving single cell RNA-seq analysis through high dimensional statistics and machine learning methods

RAO GROUP | UNIVERSITY OF CALIFORNIA, BERKELEY

Research Assistant
Summer 2016 – Present | Berkeley, CA
Principal Investigator: Professor **Satish Rao**

- Research in phylogenetic algorithms and optimization of estimation accuracies on various trees and super tree reconstruction
- Current investigation on faster multiple sequence alignment (MSA) methods

INDUSTRY EXPERIENCE

FACTUAL Software Engineering Intern

Summer 2016 | Los Angeles, CA

- Worked on probabilistic deduplication, entity resolution, and record linkage of various locations databases with investigation into several methods such as Latent Dirichlet Allocation, non-parametric Bayesian inference
- Improved various metrics such as F1 score, RMSE, log loss

PROJECTS

KALLISTO C++ | R | Python

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

SLEUTH R

- 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

SCRNA ERROR CORRECTION Python

- Investigate data re-imputation through various maximum likelihood estimators, Bayesian inference, and Latent Dirichlet Allocation

AWARDS

2016	top 10%	Dean's Honors List College of Engineering
2014	top 3/250	MIT Think Award