

Daniel Li

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EDUCATION

UNIVERSITY OF CALIFORNIA, BERKELEY

B.Sc. IN ELECTRICAL ENGINEERING & COMPUTER SCIENCE

Fall '14 - Spring '17 | Berkeley, CA

Note: Graduate School (PhD) Intended

GPA: 3.63/4.0

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.

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

LINKS

Github:// [RemarkablyAverage](#)
LinkedIn:// [danielli97](#)

COURSEWORK

GRADUATE

Algorithms & Uncertainty
Combinatorial Algorithms & DS

UNDERGRADUATE

Efficient Algorithms
Machine Learning
Computational Photography
Data Structures
Computer Architectures
Human Computer Interaction
Discrete Mathematics
Probability Theory
Designing Information Systems I, II

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