# Daniel Li

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#### Education

UC - Berkeley Fall '17 - Spring '18 M.Sc. in Electrical Engineering Computer Science

GPA: 4.0/4.0

UC - Berkeley Fall '14 - Spring '17 B.Sc. in Electrical Engineering Computer Science

**GPA**: 3.96/4.0 UD/GD Tech. 3.65/4.0 Cumulative

#### Skills

#### Programming

Python: Java: R: LaTeX: HTML Frameworks | Libraries | Misc. PyTorch: Tensorflow: NumPy: SKLearn: Git/VCS: Hadoop:

Apache Spark

Mathematics & Statistics Linear Algebra: Probability:

Bayesian Inference: Non-parametric

Statistics: Algebra: Topology

#### Coursework

#### Graduate

Algorithms & Uncertainty Beyond Worse Case Analysis Combinatorial Algorithms Computational Geometry

Deep Learning

Undergraduate Efficient Algorithms

Computational Imaging

### **Awards**

Dean's Honors MIT Think Award

# Research Experience

Pachter Group @ UC - Berkeley

Research Assistant

V Research in novel approaches to RNA-sequencing with the features in abundance estimation transcript annotation difficulties, differential expression

Rao Group @ UC - Berkeley

Research Assistant

V Investigation on gene feature identification and accurate dimensionality reduction through recurrent convolutional autoencoders

# **Industry Experience**

#### **NEC** Research Institute

Summer 2017

Fall 2015: Present

Fall 2016: Present

Research Scientist Intern

- V Research in adaptive memory networks with a focus in faster inference. Currently under submission for ICLR '18
- V First undergraduate researcher in Ph.D level work and in the hired candidate pool

Summer 2016 Factual Inc.

Software Engineering Intern

V 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

V Improved various metrics such as F1 score, RMSE, log loss

# **Teaching Experience**

CS 160 HCI @ UC - Berkeley

Graduate Student Instructor

- V Create content and lead section discussion group of 30 students on a weekly basis
- V Hold office hours and grade student work

## Research Projects

#### Adaptive Memory Networks

Python

Fall 2017: Present

- V Designed and implemented a dynamic memory network implemented using PyTorch's automatic differentiation to achieve faster inference times on QA tasks
- V Achieved state of the art results on bAbi text dataset
- V Under review as a conference paper in ICLR '18

scRNA - NET Python

- V Designed specialized autoencoder architectures to correct scRNA (single cell RNA sequenced data) data corruption
- V Led the project team of 2 other students
- V Proposal under submission to NVidia GPU Academic Grant Program