

# Dilip Thiagarajan

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## EDUCATION

### CORNELL UNIVERSITY

B.A.: CS and Mathematics  
Tanner Dean's Scholar  
Dean's List  
Major GPA: 4.0/4.0

### THOMAS JEFFERSON HSST

Grad: June 2015  
GPA: 4.4/4.0

## COURSEWORK

### IN PROGRESS (FALL '17)

Foundations of AI  
Probability Theory  
Natural Language Processing  
Computational Genetics and Genomics

### COMPLETED

Supervised Machine Learning  
Analysis of Algorithms  
Numerical Analysis  
Language and Information  
ML for Data Science  
System Organization & Programming  
Probability & Statistics  
Manifolds & Differential Forms  
Functional Programming  
Linear Algebra  
Applicable Algebra  
Bioinformatics Programming  
OO Design & Data Structures  
Discrete Structures  
Probability Theory

### MOOC

Machine Learning (Coursera - Stanford)  
Introduction to Apache Spark (EDX)  
Distributed ML with Apache Spark (EDX)  
Scalable Machine Learning (EDX)

## SKILLS

### PROGRAMMING

Proficient in:

Java • Python • Octave/MATLAB  
C/C++ •  $\text{\LaTeX}$  • Git

Familiar with:

R • OCaml • SQL  
HTML • CSS • JavaScript

ML Frameworks:

TensorFlow • PyTorch • Caffe

Operating Systems:

Windows • Linux (UNIX) • Macintosh

## WORK EXPERIENCE

### GOOGLE | CLOUD AI | SOFTWARE ENGINEERING INTERN

June 2017 - August 2017 | Remote

- Used weakly supervised ML to analyze the difficulty of image classification problems with images labeled using crowd-compute labels.
- Involved extensive usage of Google's internal image indexing, MapReduce library and database querying libraries.

### HUMAN DX | ENGINEERING INTERN

December 2016 - February 2017 | Remote

- Using neural network theory to work on machine translation of patient diagnoses.
- Building a Tensorflow framework for sequence-to-sequence models allowing for customization in any component of the overall model.

### MEANWISE | AI TEAM LEAD

June 2016 - November 2016 | NYC, NY

- Using standardized machine learning techniques to simplify the process of finding jobs and hiring by automatically matching talent with companies based on personality and organizational culture.
- Using IBM's Watson API to build a prototype app for categorizing and ranking candidates for various job descriptions.

### CORNELL UNIVERSITY | TEACHING ASSISTANT: CS 2800

January 2016 - May 2016, Aug 2016 - Dec 2016 | Ithaca, NY

- Held office hours answering student questions regarding course material.
- Assisted in grading problem sets and exams for students enrolled in the course.

### CORNELL UNIVERSITY | UNDERGRADUATE RESEARCHER

April 2016 - June 2016 | Ithaca, NY

- Working to implement a usable module for stochastic depth in deep learning frameworks in Caffe, under the supervision of Prof. Kilian Weinberger.

### NATIONAL INSTITUTES OF HEALTH | CS RESEARCH INTERN

June 2014 - Sep 2014 | Bethesda, MD

- Clustering of regulatory elements in the human genome using scalable modules in Python and parallel processing.
- Modeled functional ties between enhancers and silencers mathematically to explain the relation between tissue-specificity of groups of regulatory elements and functional/genomic significance

### GEORGE MASON UNIVERSITY | CS RESEARCH INTERN

June 2013 - Aug 2013, June 2015 - Aug 2015 | Manassas, VA

- Used linear algebra and random matrix theory (in Java) to analyze correlations between mutations in common viruses, such as the influenza virus (2013).
- Investigated genomic sequences associated with protein interfaces possessing unusual attributes, such as statistically significant segments of complementary sequences using math modules available in Python (2015).

## PROJECT WORK

### CORNELL TECH | UNDERGRADUATE RESEARCHER

June 2016 - August 2016 | NYC, NY

- Re-implementing a CV project to recognize in-situ groceries using Tensorflow.
- Building convolutional nets specifically for the task of recognizing groceries on the shelf using genetic algorithms.