# 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)**

Bayesian Machine Learning 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

# SKILLS

#### **PROGRAMMING**

Proficient in:

Python • Java • Octave/MATLAB

C/C++ • LATEX • Git

Familiar with:

R • OCaml • SQL

HTML • CSS • JavaScript

ML Backends:

TensorFlow • PyTorch

ML Frontends:

Keras

## WORK FXPERIENCE

#### **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.