

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

Supervised Machine Learning
Analysis of Algorithms
Numerical Analysis
Information Retrieval

COMPLETED

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
Differential Equations
Artificial Intelligence
Parallel Computing

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 • Mathematica • R
OCaml • \LaTeX • Git

Familiar with:

C/C++ • JUnit • Octave • SQL
HTML • CSS • JavaScript

ML Frameworks:

TensorFlow • Keras • Caffe

Operating Systems:

Windows • Linux (UNIX) • Macintosh

WORK EXPERIENCE

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

IM2LATEX | SIDE PROJECT

Feb 2016 - Present

- Implementing attention models in Keras that "takes an image of a PDF math formula, and outputs the characters of the LaTeX source that generates the formula" (this is an OpenAI Research Request).

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.