Research Interests

Theoretical machine Learning, algorithms.

Education

Rutgers University NJ, USA

PhD in Computer Science

Sept. 2021 - Present

Sept. 2019 - May 2021

• Key courses: Economics and Computation

New York UniversityMaster of Science in Computer Science, 3.77/4 GPA

NY. USA

• Key courses: Algorithmic Machine Learning and Data Science, Mathematical Tools for Data Science, Machine Learning, Design and Analysis of Algorithms I

University of Pune Pune, India

Bachelor of Engineering in Computer Engineering, 8.22/10 CGPA

July 2013 - May 2017

• *Key courses*: Design and Analysis of Algorithms, Natural Language Processing, Data mining, Operating systems, Computer networks, Theory of Computation.

Publications _____

Authors appear in alphabetical order. Exceptions are marked with *

Dynamic Trace Estimation

Prathamesh Dharangutte, Christopher Musco.

Conference on Neural Information Processing Systems (NeurIPS) 2021.

An Energy-Based View of Graph Neural Networks*

John Y. Shin, Prathamesh Dharangutte

Energy-Based Models Workshop (ICLR 2021).

Graph Learning for Inverse Landscape Genetics

Prathamesh Dharangutte, Christopher Musco.

AAAI Conference on Artificial Intelligence (AAAI 2021).

Research Experience _____

New York University Tandon

Brooklyn, NY

Graduate Student Researcher

Sept 2019 - May 2021

• Advised by: Prof. Christopher Musco

Teaching Experience

Mathematical Foundations of Data Science (CS 501)

Teaching Assistant Fall 2021

Instructor: Prof. Charles Cowan

Rutgers University

Introduction to Machine Learning (CS-UY 4563)

Teaching Assistant Spring 2020

Instructor: Prof. Christopher Musco

NYU

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Professional Experience

HSBC Software Development

Pune, India

Software Engineer

August 2017 - November 2018

- Developed and maintained web application for internal use.
 Restructured the architecture of RTC plugin for better scaling.
 Developed chatbot for internal use within teams at the organization.

Prism IT Solutions Pune, India

Software Engineer Intern

December 2015 - May 2016

- Developed a framework for processing and extracting insights from XML data using Apache Spark.
- Surveyed algorithms for determining emotion in audio to integrate with company's product.

Projects_

Expressive English TTS system

- Studied how emotions cause variation in human speech and ways to incorporate it into a Text-To-Speech system.
- Advised by: Prof. Girish Potdar

Technical Skills

Programming Python, Java, Javascript, Matlab

Tools and Libraries PyTorch, Tensorflow, Django, Spark, Spring