

# Prathamesh Dharangutte

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## RESEARCH INTERESTS

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- I am broadly interested in **algorithms for big data analysis**. Currently, I am exploring practical and robust algorithms for problems in **differential privacy**. I am also interested in numerical linear algebra and machine learning.

## EDUCATION

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- **PhD in Computer Science**  
Rutgers University  
Advisor: Jie Gao  
Sept 2021 – Present
- **MS in Computer Science**  
New York University  
Thesis: Dynamic Trace Estimation.  
Advisor: Christopher Musco  
Aug 2019 – May 2021
- **B.E. in Computer Engineering**  
Pune University  
July 2013 – May 2017

## PUBLICATIONS

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Authors appear in alphabetical order. Exceptions are marked by \*.

### Conference papers.....

- **Integer Subspace Differential Privacy**  
Prathamesh Dharangutte, Jie Gao, Ruobin Gong, Fang-Yi Yu  
AAAI Conference on Artificial Intelligence (AAAI 2023). [[Link](#)]
- **A Tight Analysis of Hutchinson's Diagonal Estimator**  
Prathamesh Dharangutte, Christopher Musco  
SIAM Symposium on Simplicity in Algorithms (SOSA 2023). [[Link](#)]
- **Dynamic Trace Estimation**  
Prathamesh Dharangutte, Christopher Musco  
Conference on Neural Information Processing Systems (NeurIPS) 2021. [[Link](#)]
- **Graph Learning for Inverse Landscape Genetics**  
Prathamesh Dharangutte, Christopher Musco  
AAAI Conference on Artificial Intelligence (AAAI) 2021. [[Link](#)]

### Workshop paper.....

- **An Energy-Based View of Graph Neural Networks**  
John Y. Shin\*, Prathamesh Dharangutte\*  
Energy-Based Models Workshop (EBM-ICLR) 2021. [[Link](#)]

## TEACHING EXPERIENCE

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TA, Machine Learning Principles (Rutgers CS461)	Fall 2022
TA, Data Management for Data Science (Rutgers CS210)	Spring 2022
TA, Mathematical Foundations of Data Science (Rutgers CS501)	Fall 2021
TA, Introduction to Machine Learning (NYU CS-UY 4563)	Spring 2020

## PROFESSIONAL EXPERIENCE

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**HSBC Software Development**  
*Software Engineer*

Aug 2017 – Nov 2018  
*Pune, India*

## SERVICE

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**Reviewer:** AISTATS'23.

**Student volunteer:** AAAI'21.