

Ankita Sarkar

PhD Student | Computer Science | Dartmouth College
Advisor: Deeparnab Chakrabarty

ankita.sarkar.gr@dartmouth.edu
+1 802 698 3945
<http://ankita.host.dartmouth.edu>

Research Interests

Theoretical computer science; approximation algorithms, graph algorithms, clustering.

Preprints

Fault-tolerant k -Supplier with Outliers
with Deeparnab Chakrabarty and Luc Cote | arXiv:2310.07208

Publications

Popular Critical Matchings in the Many-to-Many Setting
with Meghana Nasre, Prajakta Nimbhorkar, and Keshav Ranjan | *to appear in TCS 982:114281 (2024)*
Preliminary version: Popular Matchings in the Hospital-Residents Problem with Two-sided Lower Quotas | FSTTCS 2021

Approximation Algorithms for Continuous Clustering and Facility Location Problems
with Deeparnab Chakrabarty and Maryam Negahbani | ESA 2022

Multmapper: Data Density Sensitive Topological Visualization
with Bishal Deb, Nupur Kumari, Akash Rupela, Piyush Gupta, and Balaji Krishnamurthy | ICDMW 2018

Research Experience

March 2021 - present	PhD Student, Computer Science Dartmouth College Advisor: Deeparnab Chakrabarty
August 2020 - October 2020	Project Associate Indian Institute of Technology, Madras Supervisor: Meghana Nasre
Jan 2019 - April 2020	Master's Thesis Student Chennai Mathematical Institute Supervisor: Prajakta Nimbhorkar
May 2019 - July 2019	Summer Trainee Indian Statistical Institute, Kolkata Supervisor: Sourav Chakrabarty
May 2018 - July 2018	Product Intern Adobe Systems, Noida Supervisor: Balaji Krishnamurthy

Teaching Experience

Fall 2022, Spring 2022, Summer 2021	Head Teaching Assistant, COSC 31: Algorithms Dartmouth College
Spring 2023	Teaching Assistant, COSC 34/234: Randomized Algorithms Dartmouth College
Fall 2021, Spring 2021	Teaching Assistant, COSC 31: Algorithms Dartmouth College
Jan-Apr 2020	Teaching Assistant, Topics in Algorithms (Matchings and Flows) Chennai Mathematical Institute
Jan-Mar 2020, Aug-Oct 2019	Teaching Assistant, Design and Analysis of Algorithms NPTEL/Swayam open online courses
Aug-Nov 2019, Jan-Apr 2019	Teaching Assistant, Design and Analysis of Algorithms Chennai Mathematical Institute
Aug-Nov 2019, Aug-Nov 2018	Teaching Assistant, Theory of Computation Chennai Mathematical Institute
Jan-Apr 2019	Teaching Assistant, Parameterized and Exact Algorithms Chennai Mathematical Institute
Jan-Apr 2019	Teaching Assistant, Advanced Programming in Python Chennai Mathematical Institute
Aug-Nov 2018, Aug-Nov 2017	Teaching Assistant, Humanities I (English) Chennai Mathematical Institute
Jan-Apr 2017	Teaching Assistant, Probability Theory Chennai Mathematical Institute

Education

2018 - 2020	Master of Science in Computer Science Chennai Mathematical Institute Thesis: <i>Popular Matchings under Lower Quotas and their relationship to Stability under Classifications</i> Supervisor: Prajakta Nimbhorkar Supported by the Cognizant Foundation Scholarship (2019-2020) and the CMI Institutional Scholarship (2018-2019)
2015 - 2018	Bachelor of Science (Honours) in Mathematics and Computer Science Chennai Mathematical Institute Supported by the CMI Institutional Scholarship (2017-2018) and the INSPIRE Scholarship (2015-2017)