

Sagnik Chatterjee

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Biography

Affiliation: Doctoral student in the [BraQIIIT](#) lab at IIIT-Delhi.
Advisor: [Debajyoti Bera](#)
Research Interests: Quantum Computing, Learning Theory, Classical & Quantum Complexity Theory.

Education

JUL'19 - present
Ph.D. CSE
Indraprastha Institute of Information Technology, Delhi (IIITD)
CGPA: 8.78

AUG'13 - AUG'17
B.Tech CSE
Maulana Abul Kalam Azad University of Technology, Kolkata (MAKAUT; formerly WBUT)
CGPA: 8.10

Research Visits

JUL-SEP '23
IDA research group, Czech Technical University, Prague (CTU)
Hosted by Jakub Marecek and Vyacheslav Kungurtsev.

Research

Conference Publications

1. **Efficient Quantum Agnostic Improper Learning of Decision Trees.** AISTATS 2024
Sagnik Chatterjee, Tharmashastha SAPV, and Debajyoti Bera.

Journal Publications

1. *Sagnik Chatterjee*, Rohan Bhatia, Parmeet Singh Chani, and Debajyoti Bera. "Quantum boosting using domain-partitioning hypotheses." *Quantum Machine Intelligence* 5, no. 2 (2023): 33. [\[DOI\]](#).
• Talk at QTML 2022.

Manuscripts and Preprints

1. **Quantum Solutions to the Privacy vs. Utility Tradeoff.**
Sagnik Chatterjee and Vyacheslav Kungurtsev.

2. **Applying the Quantum Alternating Operator Ansatz to the Graph Matching Problem.**
Sagnik Chatterjee and Debajyoti Bera.
Poster AQIS'20; QIP'21.

Invited Talks

Quantum Computing Semester, Chennai Mathematical Institute	February 2024
University of Riga	September 2023
IDA Seminar, Czech Technical University	September 2023
Short Talk at QTML 2022	November 2022
Theory Seminar, Indian Institute of Information Technology Delhi	March 2022
QISE Workshop	December 2021
Faculty Development Programme, JNTU Anantapur	December 2020

Teaching

CMI QC Semester (2024)	Instructor	Quantum Algorithms for Linear Algebra
IIIT-D Winter Semester (2020, 2021, 2024)	Teaching Assistant	Theory of Computation
IIIT-D Winter Semester (2023)	Teaching Assistant	Introduction to Quantum Computing
IIIT-D Refresher Module (2022)	Instructor	Introduction to C Programming
IIIT-D Summer Semester (2022)	Teaching Assistant	Data Structures and Algorithms
IIIT-D Monsoon Semester (2020, 2021)	Teaching Assistant	Modern Algorithm Design

Reviewing

Journals: Scientific Reports (2024)

Workshops and Schools

IISc Bangalore	JTG/IEEE ITSoc Summer School 2023
FSTTCS'21 (<i>Online</i>)	Quantum Information Science and Engineering (QISE) 2022
IIIT Delhi	Indo-German Spring School on Algorithms for Big Data 2020
ISI Kolkata	Workshop on Boolean Functions 2020
IAS Jerusalem	The 4th Advanced Winter School in Computer Science and Engineering 2019

Selected Extra-Curricular Activities

AUG'22-Present	Organizer and coordinator for Theory Reading Group talks, at IIIT Delhi.
AUG'22-DEC'22	Organizer and coordinator for Ketchup talks, at IIIT Delhi. https://twitter.com/KetchupIIITD .
DEC '21	Organizer for the QISE'21 workshop. https://acm-goa.github.io/QISE/ .
FEB '20	Student organizer for the Indo-German Spring School on Algorithms for Big Data 2020, at IIIT-Delhi. https://sites.google.com/view/abd2020/home .
FEB '20	Organized the first India Quantum Computing Meetup in New Delhi. https://sites.google.com/iiitd.ac.in/indiaqcmeetup/home .

Industry Experience

SEP'17-MAR'19	Oracle Financial Services Software Limited
FEB'17-MAY'17	Infosys Limited (Systems Engineering Intern)
JUN'16-JUL'17	AlCircle Pte Ltd (Data-Science Intern)