

Sagnik Chatterjee

C-214, Old Boy's Hostel, Indraprastha Institute of Information Technology Delhi, 110020

🌐 chatsagnik.com 📄 /in/chatsagnik ✉️ sagnikc@iiitd.ac.in 🔄 chatsagnik 📄 bit.ly/stacksagnik

Current Position and Research Interests

I am a PhD candidate at **IIIT Delhi**, advised by **Dr. Debajyoti Bera**. My main research interests include quantum algorithms, optimization, and learning theory.

Research Work

MAR'22		Quantum Boosting using Domain-Partitioning Hypotheses
OCT'21		Poster presented at QIP'22, and accepted at TQC'22. Pre-print at https://arxiv.org/abs/2110.12793 .
FEB'21		Applying the Quantum Alternating Operator Ansatz to the Graph Matching Problem
DEC'20		Poster presented at QIP'21. Extended abstract acceptance at AQIS'20.
NOV'20		Pre-print at https://arxiv.org/abs/2011.11918 .

Education

JUL '19 to present		Indraprastha Institute of Information Technology, Delhi Doctoral Student (Ph.D.) in <i>Computer Science</i> Dissertation area: <i>Quantum computing</i>
AUG '17		Maulana Abul Kalam Azad University of Technology, Kolkata Bachelor of Technology in <i>Computer Science and Engineering</i> (8.10/10) Don Bosco School, Bandel
APR '13		Indian School Certificate Examinations (91.75 %)
APR '11		Indian Certificate of Secondary Education (95.4 %)

Teaching Experience

Winter 2020, 2021		Teaching Assistant for Theory of Computation course.
Monsoon 2020, 2021		Teaching Assistant for Modern Algorithm Design course.

Selected Co-Curricular Activities

MAR '22		Gave an invited talk on quantum boosting algorithms at the IIT-Delhi theoretical CS seminar. Slides at https://bit.ly/3MkjN91 .
DEC '21		Organizing the QISE workshop (co-located with FSTTCS). https://acm-go.a.github.io/QISE/ .
DEC '20		Gave a talk on Quantum Machine Learning at a Faculty Development program hosted by Jawaharlal Nehru Technological University, Anantapur. Slides at https://bit.ly/qmlslides .
JAN '20		Received 2 nd place in the IBM Q Awards , Teach Me Quantum category. https://bit.ly/ibmqawards20
DEC '19		Selected to attend the 4th Winter School in Computer Science and Engineering (on The Mathematics of Quantum Computation) organized by the Israel Institute for Advanced Studies , at the Hebrew University of Jerusalem. https://ias.huji.ac.il/SchoolCSE4 .

Industry Experience

NOV '18 to MAR '19	Oracle Financial Services Software Limited Staff Consultant: Developed data models. Programmed generation of scheduled reports during EOD operations in the bank. Bank successfully went live in December 2018.
SEP '17 to OCT '18 <i>Technology Stack</i>	Associate Consultant: Customized the business logic of our core product FCUBS. FLEXCUBE, BI-Publisher, JAVA, JSP, Weblogic, JS, SOAP, Spring, Hibernate, Oracle 12c, SQL.
FEB'17 TO MAY'17 <i>Technology Stack</i>	Infosys Limited Systems Engineering Intern (Full Stack Developer): Agile methodology. JAVA, Weblogic, Angular, REST, Spring, Hibernate ORM, Oracle 12c, SQL, PL/SQL.
SUMMER 2016 <i>Technology Stack</i>	AlCircle Pte Ltd Data-Analyst Intern (Python Application Developer): Created an application to source content for the editorial team. Crawler+Database Insertion+Automated Updates. Python, MySQL, REST.

Selected Extra-Curricular Activities

FEB '20	Helped organize 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 Quantum Computing Meetup in New Delhi, at IIIT-Delhi in association with the IBM advocates of India. https://bit.ly/indiaqc .
DEC '16	Represented MAKAUT-Inhouse at ACM-ICPC Amritapuri Regionals 2016.

Key Skills

PROGRAMMING LANGUAGES	Java, C++, C, Python, JavaScript, SQL, UNIX shell, MATLAB
PROPRIETARY PRODUCTS	QISKIT, Pennylane, FLEXCUBE, BI-Publisher, Weblogic, Tomcat, Oracle 12c
MARKUP LANGUAGES	HTML5, CSS, XML, LaTeX, Markdown

References

Dr. Debajyoti Bera	Department of Computer Science, IIIT Delhi Email: dbera@iiitd.ac.in
Dr. Syamantak Das	Department of Computer Science, IIIT Delhi Email: syamantak@iiitd.ac.in