

SAYAN KARMAKAR

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Education

Indian Institute of Science Education and Research Kolkata

Nov. 2022 – Present

5 Year Bachelor of Science and Master of Science (BS-MS) Dual Degree Programme

Kolkata, West Bengal

2nd Year Pre-Majors: Physical Sciences, Chemical Sciences, Earth Sciences

3rd Major: Chemical Sciences with a minor degree in Physical Sciences

Current CGPA : **8.63** (After semester V)

Nalanda Academy

2021

CBSE, Class 12-Grade: 88.25 percentage

Kota, Rajasthan

Holy Angels' School

2019

ICSE, Class 10-Grade: 96 percentage

Katwa, West Bengal

Ongoing and Past Coursework

Chemical Sciences: Quantum Chemistry II, Quantum Chemistry I, Inorganic Chemistry II, Inorganic and Spectroscopy Lab, Fundamentals of Spectroscopy, Reaction Mechanisms in Organic Chemistry, Synthesis and Characterization Laboratory, General Physical Chemistry, Physical Chemistry Lab

Physical Sciences: Basic Quantum Mechanics, Thermal Physics, Modern Physics Lab, Waves and optics, Mechanics II(Special Theory Of Relativity), Mechanics I, Electricity and Magnetism, Optics Lab

Earth Sciences: Introduction to Environmental Science, Geophysics, Biogeochemical Cycles, Hydrology and Geodynamics, Earth System Processes, Earth and Planetary Sciences.

Computer Sciences: Introduction to Computation, Introduction to Computer Programming.

Academic Interests

Physics: Quantum Mechanics, Quantum Computing

Chemistry: Quantum Chemistry, Spectroscopy

Computer Programming: Competitive programming

Technical Skills

Languages: Python, Latex, Qiskit, PennyLane

Softwares: Linux, Gnuplot, Origin, Microsoft softwares

Hackerrank Profile: [Link](#)

Experience

Quant-Act Lab, Dr. Sangita Sen

May 2024 — July 2024

Summer Research Intern

IISER Kolkata, West Bengal

- Implemented Different Error Mitigation Techniques In Quantum Algorithm.
- Implemented two quantum error mitigation techniques Zero Noise Extrapolation(ZNE) and Read-out Error Mitigation(REM).
- Error mitigated the algorithm of finding H_2 ground state energy using Zero Noise Extrapolation.

Languages

English: Fluent Proficiency

Bengali: Native Language

Hindi: Limited Working Proficiency

Extra Curricular

Hobbies: Swimming, Playing Football, Video Editing