

## EDUCATION

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**Ramakrishna Mission Vivekananda Education and Research Institute** Belur, West Bengal, India  
M.Sc. in Physics, CGPA: 9.02/10.00 (Till 2nd sem.) 2021–Present

**Asutosh College, University of Calcutta** Kolkata, West Bengal, India  
B.Sc. (Honours) in Physics, CGPA: 8.060/10.00 2018–2021

**Elective Papers:** Advanced Statistical Mechanics, Advanced Classical Dynamics,  
Nuclear and Particle physics, Laser and Fibre optics

**Apeejay School, Salt Lake** Kolkata, West Bengal, India  
XII, Central Board of Secondary Education (CBSE), Percentage: 91.8 2018  
X, Central Board of Secondary Education (CBSE), CGPA: 10.0/10.0 2016

## RESEARCH EXPERIENCE

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### Monte-Carlo simulation of 2D Ising model

*Final project for Phy 415: Computer Fundamentals and Computational Physics*

- Implemented the metropolis algorithm to simulate the Ising model on a 2D lattice.
- Used it to study the properties of spin systems under an external magnetic field, replicating some results of [10.1103/PhysRevB.42.856](https://arxiv.org/abs/10.1103/PhysRevB.42.856)

### Computational Investigation of the Allen-Cahn and Cahn-Hilliard equation

*Supervisor: Dr. A.K. Bhattacharjee, Professor, Dept. of Physics, Asutosh College, University of Calcutta*

- Developed code solving the nonlinear Allen-Cahn and Cahn-Hilliard equations using spectral methods
- Demonstrated increased accuracy using small lattice sizes. Report: [Here](#) Codes: [Link to github repository](#)

## EXTRACURRICULAR ACTIVITIES

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- Speaker in a group presentation contest at the Delight Physics Lab, Kolkata, India and gave a presentation titled “Arrow of Time” based on unidirectional flow of time in February 2020
- Received invitation for undergraduate associateship in Physical Sciences at the Saha Institute for Nuclear physics, 2019 (*Could not attend due to conflicting exam schedule at my university*)
- Received invitation for National Initiative of Undergraduate Sciences (NIUS) camp, 2019 at Homi Bhabha Centre for Science Education, Tata Institute of Fundamental Research, Mumbai (*Could not attend due to conflicting exam schedule at my university*)
- Participated in Central Board of State Education (CBSE), State Level Science Exhibition in 2014 and 2015
- Captain of the school chess team

## SCHOLARSHIPS AND AWARDS

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- 1st prize in Quiz at the Delight Physics Lab, Kolkata, India 2020
- Times Spark Scholarship 2018  
*Awarded by Times of India*
- 1st prize in Model Presentation (Senior level), Science Fair organised by Institute of Engineering and Management 2017
- Jit Paul Award 2017  
*Awarded to a student of class XI who has demonstrated over the last three years in his action, behaviour and work, human values enshrined in the Indian cultural tradition.*

## SKILLS

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- **Computational skills:** Python (Scipy, Numpy, Matplotlib), Fortran95, C++, Latex, Gnuplot, Origin

## LANGUAGES

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- Fluent in English, Bengali and Hindi