Abhay Kshirsagar

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Education

2019–Present **Indian Institute of Science Education and Research- Kolkata**,
Dept. Biological Sciences.
GPA – 8.74/10

Projects

Nov 2021– **Exploring the the Free Energy Landscape of IDR using Deep Learning**, *Prof. Neelanjana Sengupta,*
Ongoing *IISER Kolkata, India.*
- Study the Conformational Landscape of two CoVID proteins using Molecular Dynamics Simulation and Variational Autoencoders.
- Sample the Intermediate Rare Conformations using the latent space

Nov 2021 – **Predicting Global Horizonal Irradiance [Code]**, *Hackathon Submission.*
Ongoing
- Implemented Long Short Term Memory Networks on previous GHI and could cover data of a solar farm.
- Qualified for second round. Awaiting Final results

Oct 2020 – **Wind Farm Layout Optimization [Code]**, *Hackathon Submission.*
Nov 2020
- Implemented Particle Swarm Optimization Algorithm in Python.
- The algorithm finds the optimal wind turbine farm layout using PSO and Wind Data of a particular region.

Jun 2020 – **Summer Project [Report]**, *Prof. Jayasri Das Sarma.*
Nov 2020
- Studied the parallels between m-CoV and SARS-CoV-2 and how is can be used as a model organism for studying SARS-CoV-2 in mice.

Feb 2020 – **Welearn Bot [Code]**, *Team Project.*
Jun 2020
- A cli application for interacting with Welearn IISER-Kolkata for downloading files getting assignment deadlines
- Implemented the cache file system for the downloaded files and calendar event creation
- Implemented the google calendar integration for adding assignment and examination deadlines as an event on google calendar for those productivity.

Achievements

Jun 2020 **KVPY SB Scholar**, *Scholarship.*
- Qualified for a scholarship program for students interested in pursuing science
- Ranked 56

Jun 2019 **INSPIRE Scholar**, *Scholarship.*
- Qualified for a scholarship program for students interested in pursuing science

Skills

Languages Python, C/C++, SQL, MATLAB, R, Dart
Frameworks Keras, PyTorch, Tensorflow
Web Dev HTML/CSS, JavaScript (ES6)
Android Dev Flutter
Communication English, Hindi

Relevant Courses

Online Certifications.
- Machine Learning by Andrew Ng - [Certificate]
- Introduction Neural Networks - [Certificate]
- Convolutional Neural Networks - [Certificate]
- Improving Deep Neural Networks: Hyperparameter Tuning, Regularization and Optimization - [Certificate]

Extra Curriculars

Aug 2021   **SlashDot Club**, *Convenor*.
A Coding and Graphic Design club for programmers and designers.

Jan 2021   **Campus Radio**, *Web Dev Team*.
Created a website with firebase for database storage.

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