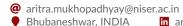
ARITRA MUKHOPADHYAY

Student. School of Physical Sciences (SPS). NISER



J +91 6290887099 in aritra-mukhopadhyay-88ab9b213





ABOUT ME

I am a Physics Major student (Int. MSc.) at the National Institute of Science Education and Research (NISER). Apart from Physics, I have a keen interest in Robotics and Technology. I also love programming from the core of my heart. I am a self-taught programmer and have been learning new things on my own. These days I am finding myself more invloved in topics like Machine Learning, Deep **Learning** and **Image Processing**. As a member of the **RoboTech Club** (RTC) of NISER, I am trying to develop an autonomous rover using my Reinforcement Learning skills.

OUTSIDE COURSEWORK

Quantum Computation Internship Prof. Prasanta K. Panigrahi

June 2022 - July 2022

IISER Kolkata

Here I learned the basics of quantum computation and various aspects of it. I read a lot of papers suggested by my instructor and also did some activities on my own. Finally, I read a paper on a Quantum Robot and felt I could solve the problem addressed in the paper better. So I learned more about the topic and submitted my report on the same.

Internship Report: Quantum Robot

PyaR Seminar 2021

Prof. Raja GuhaThakurata

 \blacksquare July 29^{th} to $31^{st}2021$

Online

Here we learned the python programming language and how it can be used with Jupyter Notebook. We also learned the basics of astronomical data analysis using libraries like Numpy, Pandas, matplotlib etc. We were also briefed about some clustering algorithms used daily in this field.

GitHub Repository (materials): PeithonKing/PyaR-2021

Quantum Computation Course

IISER Tirupati & Qkrishi

2022 Summer Break

Online

I did a course on the basics of Quantum Computation and Quantum Information jointly organised by IISER Tirupati and Qkrishi. We learned the basic theory and had a hands-on experience with the IBM Quantum Experience. We also submitted a term project of Attacking Quantum Key Distribution Protocols. We demonstrated QKD algorithms like BB84 and E91 protocols in multiple devices on the same network using python libraries like Flask and Qiskit.

GitHub Repository: PeithonKing/Attacking_QKD_Protocols

"Start by doing what's necessary; then do what's possible; and suddenly you are doing the impossible!"

MOST PROUD OF

Came first in the ML4SCI Hackathon The Higgs Challenge

STRENGTHS

Hard-working | Eye for detail

Motivator & Leader

C++ | Embedded Systems

Statistical Analysis

LANGUAGES

English

Speaking, reading, writing



Bengali

Speaking, reading, writing

Hindi

Speaking, reading



German

Learning



EDUCATION

Ph.D. in Your Discipline **Your University**

Sept 2002 - June 2006

Thesis title: Wonderful Research

M.Sc. in Your Discipline **Your University**

Sept 2001 - June 2002

B.Sc. in Your Discipline **Stanford University**

Sept 1998 - June 2001

Building a Drone

RoboTech Club, NISER

June - July 2021

NISER

We built an autonomous drone with aid from RTC. The structure of the drone was built from scratch using aluminium box pipes, switchboard sunmica plates and some small 3D-printed parts. We used pixhawk 4 as the flight controller. It can fly in both manual mode or follow a predefined path using GPS. This drone can be developed further for learning.

Machine Learning Internship

Prof. Kripabandhu Ghosh

Dec 2021 - Jul 2022

IISER Kolkata

Here I specifically focussed on the Natural Language Processing (NLP) and Information Retrieval part of ML. I learned more about the different steps of doing NLP, their problems and the different processes to solve them. I also learned about some scoring algorithms for sorting documents in a corpus concerning relevance to a query. Finally, I succeeded in bringing a MAP value of 0.21 for the AILA dataset provided to me (the maximum MAP value achieved before that was 0.14).

GitHub Repository: PeithonKing/AILA

Member of the RoboTech Club of NISER

Prof. Subhankar Mishra's Lab

Jan 2021 - Present

smlab-niser

Here I specifically focussed on the Natural Language Processing (NLP) and Information Retrieval part of ML. I learned more about the different steps of doing NLP, their problems and the different processes to solve them. I also learned about some scoring algorithms for sorting documents in a corpus concerning relevance to a query. Finally, I succeeded in bringing a MAP value of 0.21 for the AILA dataset provided to me (the maximum MAP value achieved before that was 0.14).

REFEREES

Prof. Alpha Beta

@ Institute

■ a.beta@university.edu

Address Line 1 Address line 2

Prof. Gamma Delta

@ Institute

Address Line 1 Address line 2