

# ARITRIK GHOSH

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A curious and enthusiastic learner with avid interest in mathematics and communication engineering.

## EDUCATION

### YEAR-2014

**CLASS X**, KENDRIYA VIDYALAYA COSSIPORE

I got 10 CGPA in CBSE class 10 examination.

### YEAR – 2016

**CLASS X11**, KENDRIYA VIDYALAYA COSSIPORE

I secured an average of 91% with subjects (mathematics, physics, computer science, chemistry) in class 12 CBSE examination.

### YEAR – 2017-21

**CLASS X11**, UNIVERSITY OF CALCUTTA, INSTITUTE OF RADIO PHYSICS AND ELECTRONICS

I am a final year student pursuing my bachelor's degree in electronics and communication engineering, my average CGPA till 5<sup>th</sup> semester is 8.4.

## RESEARCH EXPERIENCE

### MAY 2019-PRESENT

A novel handover algorithm to minimize traffic in mobile base-station.

Under the guidance of Dr. Arani Bhattacharya (Assistant Professor, IIIT Delhi), I am tasked to produce a data driven algorithm which will ensure optimal utilization of base station with respectable QOS of mobile user.

### OCTOBER 2020-PRESENT

Infrastructure less indoor localization

Under the guidance of Dr. Ayon Chakraborty (Assistant Professor, IIT Madras), I am trying to come up with a process of indoor localization with the help of IMU (inertial measurement unit) of user and AP (access points) present in an area.

## INTERNSHIP AND TRAINING

### JULY 2019-AUGUST 2019

Telecommunication engineer industrial trainee in Indian south eastern railway.

### AUGUST 2020-SEPTEMBER 2020

Research intern (IEEE MTT society), made a wide band SIW antenna for radar application

### SEPTEMBER 2020-OCTOBER 2020

Virtual engineering program in cyber security conducted by Forage and Goldman Sachs

### OCTOBER 2020-OCTOBER 2020

Data analytics virtual program conducted by Forage and Quantum

### NOVEMBER 2020-NOVEMBER 2020

Software engineering virtual experience program conducted by Forage and JPMorgan Chase and Co.

### JANUARY 2021-PRESENT

Business and data analyst intern in Sparks foundation.

## PROJECTS

### JANUARY 2018-DECEMBER 2019

Design and simulation of micro-strip patch antenna under the guidance of Dr. Srikanta Pal (H.O.D ECE, BIT Meshra).

### MAY 2019-DECEMBER 2019

Analyzing trend of traffic in mobile base station from different cities of India using ARIMA model. Time series prediction of traffic pattern and base station utilization using LSTM. Determining chaotic nature of mobile base station using Lyapunov exponent.

### DECEMBER 2019-MARCH 2020

Microwave imaging using finite element method and method of moment under the guidance of Dr.Srikanta Pal (H.O.D ECE, BIT Meshra).

### APRIL 2020-AUGUST 2020

Microwave filter, diplexer and triplexes synthesis using least square optimization (Levenberg marquardt algorithm) under the guidance of Dr.Srikanta Pal (H.O.D ECE, BIT Meshra).

### JULY 2020-PRESENT

Using SIW(substrate integrated waveguide) technology to produce efficient wireless power transfer, under the guidance of Dr.Jawad Y. Sidqqi (Associate professor, Institute of Radio physics and Electronics), this is my final year project.

## ACHIEVEMENT AND CERTIFICATES

- Selected for MTRP (Mathematics talent reward program ) camp in 2015 , conducted by ISI Calcutta
- Received elite certificate in Linear Algebra form NPTEL in 2018.
- My team secured 1<sup>st</sup> position first position in STEX IEEE 2019, a research project competition. The project that we worked on was to design an efficient machine learning approach towards detecting blindness in diabetic patients.
- My team secured top 100 position in Hack the Crisis India 2020 hakathon, conducted by government of India and garage 42, where we made a web based trading platform for secured trading of goods during lockdown.
- Received course certificate in Simulation and modeling of natural processes conducted by University of Geneva and coursera.
- Received IBM data analyst certificate form coursera.
- Kaggle Certificates-Introduction to machine learning, Intermediate machine learning, introduction to AI and reinforcement learning.
- HackerRank Certificates-Problem solving assessment and Python assessment.
- Received Google analytics certificate form Google in 2020.

## SKILLS

- I have proper communication and presentation skill to convey my thought process and present a meaningful result.
- I have prior experience in working in a team to achieve a common goal.
- I have proper exposure in programming languages such as python, C++, matlab and R.
- I have basic knowledge of relational databases, data structure and algorithms.
- I also have experience using NS3 to build network simulation.
- And I also have experience using HFSS electromagnetic suit.

## INTEREST

- Linear algebra, real analysis, probability theory, abstract algebra and convex optimization and edge computing are some of the subjects which I love to explore.
- I also like making games and I made few platformers like Mario previously.

## HOBBY

- My only hobby is playing chess, I have represented my state multiple times in national competition and this is the only game other than football which gives me joy. And also I am a big Manchester United fan.