# Rajarshi Banerjee

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## EDUCATION

- **University of Calcutta** (2018-2022)                                                  Kolkata, India
  *B.Tech in Optics and Optoelectronics Engineering*
  Percentage Scored – **75.11%**
- **Higher Secondary – Aditya Academy**  (2017)                                Barasat, West Bengal
  *Stream Science*
  Percentage Scored – **78%**
- **Secondary – Aditya Academy** (2015)                                        Barasat, West Bengal
  CGPA – **7.4**

## PROJECTS

- **Bachelor's Thesis** ( Sept 2021 – Current)

  Working on *detection and classification of diabetic retinopathy(DR)* using various image processing techniques and deep learning under the supervision of *Dr. Uma Sankar* at **Indian Statistical Institute Kolkata (ISI Kolkata)**

- **Bachelor's Mini Project** (Jan 2021 – Feb 2021)                                            Link
  Demonstrated the transmission of data through LASER using two Arduino Nanos as a transmitter and a receiver under the supervision of *Dr. Kanik Palodhi* at **University of Calcutta**

- **Personal Projects**
  - **Sorting Algorithm Visualizer**                                              GitHub YouTube
    Created a **GUI** application using **Tkinter** Module in **Python** to visualize *sorting algorithms*
  - **Advance Python Data Structure Library**                              GitHub Package link
    Implemented advanced *data structures* (from *linked list* to *trees*) in **python** and published the distributable package library on pypi.org
  - **Trick or Treat**                                                                  GitHub YouTube
    Created a *game* in **python** using the **pygame** module
  - **Discord Bot**                                                                             YouTube
    Created a discord bot in **python** using the **discord API** for python using **OOPs** concepts, integrated it with a **free dictionary API**, **Reddit API** to fetch memes or latest posts, **GitHub API** to collect stats of the user using the bot. Users can also play **tic-tac-toe game** with the *bot*. Hosted it on Heroku. Improved the bot based on the *feedback given by people who used it*.
  - **Mp3 Music Player**                                                                       GitHub
    Created a GUI application in **python** using the **Tkinter** module that can play Mp3 songs. Used **sqlite3** as a database so that users can open files to play and save songs as favourites.

## INTERNSHIPS

- **GeeksforGeeks** (Sept 2021 – Present)                                                Articles link
  **Technical Content Writer**
  Wrote and published various articles on *python, image processing ,OpenCV and Mathematics.*

- **Centre for Development of Advance Computing (CDAC)** (Nov 2021 – Present)
  **Research Internship**
  Working on Human Computer Interaction (air writing and cursor control) project using python and machine learning.

## SKILLS

Python　Image Processing　OpenCV　Data Structures　Deep Learning

Object Oriented Programming　C++　Algorithms　Git & GitHub　MS Office

## COURSES AND CERTIFICATES

- Data Structure with Python By Sandeep Jain from *GeeksforGeeks*　certificate
- Elements of AI from *University of Helsinki*　certificate
- Computer Vision with Python from *Udemy*　certificate
- Python Bootcamp 2021 Build 15 Working Applications and Games from *Udemy* certificate

## ACHIEVEMENTS

- 3 ☆ Coder at Codechef　profile
- Solved 200+ problems across all coding platforms (codechef, geeksforgeeks, hackerrank)
- Participated in **Hacktoberfest 2021** contributed to **open-source** and made 8 valid pull requests