# RAJARSHI BANERJEE

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## EDUCATION

**University of Calcutta | Kolkata, India** (2018-2022)
Bachelor of Technology in Optics and Optoelectronics Engineering **|** CGPA – 8.0/10.0
**Higher Secondary – Aditya Academy (C.B.S.E) |Barasat, India** (2015-2017)
Stream – Science | Percentage – 78%

## EXPERIENCE

**Research Intern - Centre for Development of Advance Computing (C-DAC)** (June 2022 – Dec 2022)

Worked on controlling mouse functionalities and keyboard shortcuts with hand gestures using **OpenCV**, and **mediapipe**. (github)

Worked as a team lead and built a computer vision application to convert hand scribbled words (written using hand gestures) to computer readable text format, using **OpenCV**, **Mediapipe**, **easyocr** and **PyTorch**. (github) (medium blog)

Worked with a team on a No-Code **AutoML** framework in python, **AutoNN**, which provides little to no-code model training tools for classification or regression tasks. (github) (website)

**Project Intern - Indian Statistical Institute (ISI Kolkata)** (Sept 2021 – Jun 2022)

Worked on my final year B.Tech project, *Classification of Retinal Fundus Images for Diabetic Retinopathy using* **Deep Learning**. Used **PyTorch** and SOTA EfficientNet architecture to solve the problem. Achieved ***84.91% accuracy*** using **CNN** model on Messidor dataset. (github)

**GeeksforGeeks** (Sept 2021 – Feb 2022) **| Technical Content Writer**

Wrote and published various articles on *python*, *image processing,* **OpenCV** *and Mathematics.* Articles link

## SKILLS

**| Python | OOPs | NumPy | PyTorch | Deep Learning | Data Structures | Algorithms | Git & GitHub | Neural Networks | Convolutional Neural Networks | MS Office | Pandas |**

## PROJECTS

**Final Year Project** (Sept 2021 – June 2022)

Worked on *Classification of Retinal Fundus Images for Diabetic Retinopathy using Deep Learning* at *Indian Statistical Institute Kolkata (ISI Kolkata)***.**

**Personal Projects**

PyTorch Model Summary (github) **|** ***PyTorch, Python*** **|** An open-source package that prints summary of a DL model like keras.
Algorithm visualizer (github) **|** ***Python, Tkinter*** **|** A GUI application to visualize various sorting algorithms written in python.
SnakeAI (github) | ***Pygame, Pytorch*** **|** Made AI learn to play the game snake using neural network and genetic algorithm.
Data-Structure-Library (github) **| Python, OOPs, Data Structures** | An open-source library of data structures like linked lists, stacks queues, doubly linked list etc. all implemented in python

## COURSES AND CERTIFICATES

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|---|---|
| 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 |
| Intro to Deep Learning from Kaggle | certificate |
| Computer Vision from Kaggle | certificate |
| Winter School of Deep Learning from ISI Kolkata | certificate |

## HOBBIES

Creating YouTube videos on Math, Deep learning, etc. My attempt to document what I find interesting [Link]