RAJARSHI BANERJEE

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, easyor 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

Primary: Python | OOPs | NumPy | PyTorch | Deep Learning | Data Structures | Algorithms | Git & GitHub | Neural Networks | Convolutional Neural Networks | Pandas | OpenCV

Secondary: JavaScript | HTML | CSS | React | MySQL

PROJECTS

Final Year Project

(Sept 2021 – June 2022)

Worked on <u>Classification of Retinal Fundus Images for Diabetic Retinopathy using Deep Learning</u> 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.

SnakeAl (github) | Pygame, Pytorch | Made Al 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

Data Structure with Python by Sandeep Jain from GeeksforGeeks	<u>certificate</u>
Elements of AI from <i>University of Helsinki</i>	<u>certificate</u>
Computer Vision with Python from <i>Udemy</i>	<u>certificate</u>
Intro to Deep Learning from Kaggle	<u>certificate</u>
Computer Vision from Kaggle	<u>certificate</u>
Winter School of Deep Learning from ISI Kolkata	<u>certificate</u>

HOBBIES

Creating YouTube videos on Math, Deep learning, Machine Learning and python. [Link]