

PRATAP SINGHA

Jumainaskar Hat, Kakdwip, West Bengal 743399

📞 9832945933 ✉ singhapratap816@gmail.com [in linkedin.com/in/pratapsingha](https://www.linkedin.com/in/pratapsingha) github.com/pratapsingha

Objective

As an AI enthusiast with over 2 years of internship experience in the field of Data Science And Machine Learning, my future objective is to embrace a challenging position where I can contribute innovative ideas, expand my skills, and drive benefits for the organization.

Education

The Neotia University

B.Tech in Computer Science and Engineering, CGPA: 8.55/10

Jun. 2020 – Present

Kolkata, West Bengal

Akshaynagar Kumarnarayan Madhyamik Sikshayatan H.S.

Science, Percentage: 80

2018 – 2020

Kakdwip, West Bengal

Relevant Coursework

- | | | | |
|--------------------|-----------------------|----------------------------|----------------------------|
| • Data Structures | • Data Science | • Artificial Intelligence | • Data Analytic Skill Path |
| • Machine Learning | • Big Data and Hadoop | • Digital Image Processing | • Web Development |

Experience

Veunex

AI Engineer

Feb 2024 – Present

Bengaluru, Karnataka, India

- In this internship i am working with object detection model as well as LLMs and make many interesting projects.
- In this internship i am working on various types of LLMs and different type of object detection model as well as easyOCR to build various ai application .
- From this kind of many projects i have learned many things and may overall project experience around 1.6 year.
- Through this position i learned those skills YOLO, Mistral-7B, RAG, LLM, Faiss, LLaMA.

University of Calcutta Technology Campus

Deep Learning Research Intern

Jun 2023 – November 2023

Kolkata, West Bengal

- Worked as a research intern at the University of Calcutta Technology Campus under the supervision of Dr.Himadri Nath Saha.
- Developed Deep Learning Model for Disease and Classification in Mung Bean and Mustered Plant and Achieved an accuracy of 99%.
- Successfully accepted for oral presentation at the ICSTA 2023 CONFERENCE.
- Successfully published in international conference.

Sunstone

Block Chain Training

Aug 2022 – Feb 2023

Remote

- Hands-on Workshops and gained practical experience in blockchain architecture, smart contracts, etc.
- Gained experience in Remix ide, Ganache, and truffle.
- Worked with a team and took a leadership role in developing multiple projects on the Ethereum Blockchain using solidity.

The Neotia University

Feature Extraction and Pattern Recognition on local images

JULY 2023 – Present

On-Campus

- In this internship I was able to learn about many local descriptor.
- In this internship worked with a team and took the leadership role in developing a face recognition project.
- Gained experience in LBP, CNN, etc.
- Hands-on experience and Gained knowledge how to extract features and identify patterns how to filter image etc.

Projects

Cancer info Medical RAG LLM | *LLM, RAG, AI*

Feb - March 2024

- It is a AI based large language model that can able to fetch all the information about cancer along with lots of disease with the feasible solution.
- In this project i implemented Mistral 7b model and Biomistral model to build this ai application to get all the information about various type of disease mainly cancer.
- In this project i used the rag(Retrieval Augmented Generation) to reduce the hallucination and deploy it in aws bedrock.
- Skills: RAG Mistral-7B, Langchain, LLaMA, Qdrant, FastAPI, Aws Bedrock.

Mung bean and Mustered Disease and pest Recognition System | *python, Deep Learning*

Jun - Sep 2023

- In this project i try to build a smart agricultural system so the farmer can easily detect the disease and pest.
- in this project i used various pre-trained model as well as custom model to get the good accuracy and predict good result around 99%.
- Through this project I was able to learn how to pre-reprocess the images.

Text To Song Generation LLM App | *Bark, RAG, AI*

March - April 2024

- In this project I build text to song generation llm app that can able to build song as per the user command.
- In this project I used open-AI and bark by suno-ai to build this application and get a good result results.
- Skills: Bark, RAG, Open-AI, FastAPI.

Facial Recognition Based Smart Attendance System | *Python, Deep Learning*

September 2023

- In this project I used deep Learning to detect the face and classify the face.
- I got around 90 percent accuracy for that reason we say it is the best model to detect the face.
- I used one pre-trained model harcascade model to detect the face very accurately and save it in the database.

Research

Semi-Supervised Disease and Pest Detection

06/2023 – 11/2023

AKCSIT, The University of Calcutta Technology Campus

Kolkata, West Bengal

- Worked as a research intern at the University of Calcutta Technology Campus under the supervision of Dr.Himadri Nath Saha.
- Developed Deep Learning Model for Disease and pest Classification in Mung Been and Mustered Plant and Achieved an accuracy of 99 Percent.
- Successfully accepted for oral presentation at the ICSTA 2023 CONFERENCE .
- Successfully Published.

Pattern Recognition on Face Recognition Using Local Descriptor

11/2023 – Present

Researcher and Team Leader, The Neotia University

Kolkata, West Bengal

- Worked as a research intern at the Neotia University under the supervision of Dr.Deep Suman Dev.
- Developed Deep Learning Model for recognising faces using local descriptors and Achieved an accuracy of 85 Percent.
- Currently Researching the domain of face recognition with mask image.
- Paper under review process.

Ai Based Code generating, Monitoring and Debugging System

2/2024 – Present

Researcher and Team Leader, AGIRT

Online

- Worked as a researcher and ai engineer in agirt our task is to provide advanced software solution.
- Developed cutting edge solution and data security on our product and developing ai model with high accuracy.
- Currently Researching the domain of artificial intelligence and generative ai and llm to build this application.
- Paper writing is ongoing.

Technical Stack

Data Science/ Machine Learning/ Deep Learning: Python, Data Visualization, Supervised Learning Algo, Unsupervised Learning Algo, ANN, CNN,EDA, Feature Engineering, Feature Selection etc.

Mathematics ML and DL: Algebra, Probability, Statistics, Calculus

Python Packages and Frameworks: Scikit-Learn, TensorFlow, Keras, Cloud vision API, NumPy, Pandas, SciPy, NLTK, LSTM, Hugging Face, LLM, RAG

Web Development: HTML, CSS, JavaScript

Programming Language: C/C++, Python, Java, SQL,NoSQL

Databases: MySQL, MongoDB

Soft Skill: Leadership, Teamwork, Good Communication

Languages: Native in Bengali, Hindi, English