



EDUCATION

Year	Degree/Exam	Institute	CGPA/Marks
2022	M.SC(5YR)	IIT Kharagpur	8.14 / 10
2016	Class XII (CBSE)	Delhi Public School, Bokaro Steel City	90.20%
2014	Class X (CBSE)	S.L D.A.V Public School, Khagaria	10 / 10

INTERNSHIPS

Naaniz Seller Services Pvt Ltd | Machine Learning Intern Aug 2020 - Present

- Developed a deep **Convolutional Neural Network** model with the help of **transfer learning** using pre-trained **Inception ResNetV2** to predict the type of food and label food in one of the 8 categories.
- Performed **sentiment analysis** on reviews and summarized the reviews using **Encoder-Decoder LSTM** architecture.
- Used the dependency parser tree in **Python's spaCy** package to extract noun-adjective pairs from the reviews.
- Used **Tf-Idf** and **Count Vectorizer** for text vectorization and built **Logistic Regression** and **Support Vector Machine (SVM)** models for Sentiment analysis with an accuracy of more than **95%**.

PROJECTS

Facial Emotion Recognition in real time Jul 2020 - Aug 2020

- Modeled a **Convolutional Neural Network (CNN)** architecture trained on the **FER2013** dataset consisting of 48*48 pixel grayscale face images belonging to seven different categories and the model was able to recognize faces in real-time and detect emotions belonging to seven different classes based on the facial expressions.
- detected bounding box of the faces in webcam and predicted the emotions using **OpenCV's** haar cascade classifier.

Opensoft, Technology General Championship. Apr 2020 - May2020

- Developed a full-fledged query and filter based legal **search system** using the Supreme Court case data.
- Used **page rank algorithm** to rank cases for relevant query processing and neural networks to incorporate context of query to find closest matching cases and indexed the case documents for faster retrieval of the cases.
- Designed and created the front end of the Search system using the **HTML, CSS and JavaScript**.

Macro Nutrient and Calorie Tracker using Django and ChartJS Nov 2019 - Dec 2019

- Built a fully functional macro nutrient and calorie tracker using **Django** and **ChartJS** to track and visualize daily macronutrients and calorie consumptions of an user based on users consumed food items.
- Learnt how to integrate JavaScript and Django to store data in browsers local storage and created dynamic charts using ChartJS and integrated it with Django for data visualization.

SKILLS AND EXPERTISE

Programming Languages : C++, Python, Javascript **Technologies :** React, Django, MongoDB, Tensorflow , Keras
Libraries: Numpy, Pandas, Matplotlib, Seaborn, Scikit-learn, Nltk **Hard Skills :** Data Structures and Algorithms
Areas of Interest : Web Development, Machine Learning, Deep Learning and Neural Networks , NLP

CERTIFICATIONS

Python for Data Science and Machine Learning Bootcamp Oct 2019 - Dec 2019

- Gained the knowledge of Python programming and implemented various libraries for Data Science and Machine Learning.
- Implemented some data science projects like Titanic survival prediction, Movie recommender system, Market segmentation.
- Developed analytical skills through the application of various libraries like Pandas, Matplotlib, Seaborn and Plotly.

Deep Learning Specialization by deeplearning.ai Jan 2020 - May 2020

- Courses taught by Prof. Andrew Ng gave a thorough understanding of Deep learning and maths behind Neural networks.
- Learnt about the concept of cost and activation functions, gradient descent, hyperparameter tuning, regularization and normalization, various optimizers and dropouts for improving deep neural networks.
- Broad introduction to CNNs for computer vision such as facial recognition and **YOLO2** algorithm for object detection.

COURSEWORK INFORMATION

Curriculum Courses: Programming and Data Structures | Partial Differential Equations | Transform Calculus | Basic Electronics | Mathematics I and II | Physics I and II | Basic Economics

Online Courses : Machine Learning by Andrew NG | Django Masterclass : Build web apps with Python and Django | Neural Networks and Deep Learning | Convolutional Neural Networks | Sequence Models | Structuring Machine Learning Projects | Complete Tensorflow 2 and Keras Deep Learning Bootcamp

EXTRA CURRICULAR ACTIVITIES

- Runner up** in Cricket tournament in Annual Intra Departmental Sports Meet, 2017-18 organized by ESSC, IIT Kharagpur
- Part of **National Sports Organization (NSO)**, IIT KGP and took an active part in rallies and social welfare activities
- Joint 3rd** in Freshers Chess tournament, 2017-18 organized by Chess Club and having a rating of above **1600** on **Chess24.com**
- Online tutor at **Toppr.com** solving doubts of students preparing for various competitive and board examinations.