Debabrata Bhakat

bhakat.debabrata@gmail.com | linkedin.com/in/debabrata-bhakat | github.com/Debabrata-bhakat

Education

Indian Institute of Technology, Kharagpur| CGPA: 8.84/10 — Kharagpur, India
Integrated (B.Tech + M.Tech) in Mechanical Engineering, Minor in Computer Science — *Aug. 2019 – Present*

Loyola High School, Jamshedpur| — Jamshedpur, India
Grade XII - ISC — *April. 2006 – Feb. 2019*

Scholastic Achievements

JEE *AIR 4165* : Among the top 0.5% amongst 1.2 million students of my country
Department Change : Got a department change which is offered to 10 percent students from each department

Technical Skills

Programming Languages: Python | JavaScript | C/C++ | Java | HTML/CSS
Libraries / Frameworks: Tensorflow | Keras | Numpy | Pandas | React | MongoDB | Express | Node.js | Bootstrap
Visualization Libraries and Softwares: Matplotlib | Seaborn | Plotly
Deployment Platforms : Heroku | Github Pages | Linode

Experience

Machine Learning Teaching Intern — May 2021 - June 2021
ETMantra Learning Solutions — *Remote Internship*

- Made videos explaining the theory of many machine learning and deep learning concepts
- Compiled some Jupyter notebooks and used various libraries like TensorFlow and Sklearn to see the practical use

Projects

Traffic Sign Classification | *Deep Learning* — April 2021 - May 2021

* Developed a classifier model using 2-D CNN to classify images into 43 different traffic signs
* Implemented data augmentation using ImageDataGenerator to remove over-fitting and get more training data
* Got an accuracy of 93% on the test set consisting of 12k images and 97% on the validation set

A-Z Alphabet recognizer | *Deep Learning* — March 2021 - April 2021

* Developed a model which can classify hand written alphabets where the input was in .csv format
* Implemented under-sampling using NearMiss since there there was huge data imbalance among different classes.
* The data set contained around 20k black and white images of 28x28 pixels
* Used 3 layer CNN and 2 Dense layer for the model and got an accuracy of 97% against the test set

Forest Cover Type Prediction | *Machine Learning, Classification* — Jan. 2021 - Feb 2021

* Developed to classify forest type cover based on 50+ features like slope, elevation, hillshade etc.
* Used various feature selection techniques like Information gain and Correlation matrix
* Applied different models like XGBClassifier and Random Forest and got an accuracy of around 73%

Blog Website | *MongoDB, Heruko, Git* — Nov 2020 – Dec 2021

* A webapp where you can compose your daily blogs and they will be stored on a cloud base
* Get a little idea about all the blogs on the home page and to find more about a blog you can go it's separate page
* Used MongoDB Atlas to store the data and Heroku for deployment

Positions Of responsibility

Tech-Head* | *Gopali Youth Welfare Society — Dec. 2020 – Present
IIT Kharagpur — *Kharagpur, India*

- Maintain and keep updating the website of the society whenever a new event comes up or there is some bug
- Proposed new website structure of GYWS with better UI/UX, which is being implemented by the team
- Mentored a group of around 25 students to help them learn software development so they can also contribute to society.

Coursework

Completed: Programming & Data Structures, Image Processing, Algorithms-I Lab
MOOCs: Deep Learning Specialisation from Coursera, Machine Learning by Stanford University, Full Stack web development from Udemy