Jibitesh Chakraborty

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LinkedIn Profile – https://www.linkedin.com/in/jibitesh-chakraborty-600ba21b6

GitHub Profile - **https://github.com/Jibitesh-Chakraborty2811**

Projects

- **Guitar Tutorial Video Streaming Web Application | React.js and Node.js (Express)**
  Built a video streaming web application specifically for streaming guitar tutorial videos. The tech-stack used was React.js for front-end and Node.js (Express) for back-end server side.
- **Course Customization Web Application | React.js and Express.js (Node.js)**
  Built a course customization web application using React.js for the front end and Express.js for the backend. Built 3 REST APIs for interaction between the client-side (front end) and the backend micro service.
- **Baked Bites | React.js and Java Spring Boot**
  Built a dynamic e-commerce website with navigation, add to cart and buy feature, using React.js and Java Spring Boot.
- **Blogging Website | React.js and Java Spring Boot**
  Built a simple blogging website using React.js for the front-end and Java Spring Boot for the back-end. Built REST APIs using Java Spring Boot for interaction between the React.js front end application and Spring Boot controller on the back-end.
- **Portfolio Website**
  Built a portfolio website using HTML5, CSS3 and Bootstrap template. Link - https://cheery-dolphin-22fcfd.netlify.app/
- **Sleep Stage Prediction Model | Machine Learning Model & Python Flask Server**
  Built a custom machine learning model which takes an individual's EEG readings as input and predicts the sleep stage for every second in the EEG reading. The classification of sleep stage of each second of the EEG reading is done by simple voting. The 6 machine learning models used are Artificial Neural Network, Decision tree, Random Forest, Naïve Bayes Classifier, K Nearest Neighbor and Support Vector Machine. Deployed the 6 models on a python flask server to take real time inputs and give outputs.
- **Classification of EEG Data into Schizophrenic, Alcoholic, Depressed and Healthy categories | Convolutional Neural Network**
  Built a Convolutional Neural Network, which takes EEG readings as inputs and classifies them into 4 categories – Schizophrenic, Alcoholic, Depressed and Healthy. A major portion of the work deals with generalizing the EEG signals to 15 channels as there is almost no consistency in the EEG signals owing to their varied sources of generation. Then the 15 channels were decomposed to 8 principal components using Principal Component Analysis and the EEG signals were resampled to a common sampling frequency of 250 Hz. This resampled dataset was fed to the Convolutional Neural Network for training and classification.

Experience

- **Software Development Intern | AiXChange | Jan '23 – Mar '23**
  Was responsible for building and maintaining the backend of the official website of the organization. Used python Flask and Firebase as the tech stacks. Also developed an automatic OMR Sheet marking system using OpenCV python.

Research Publication

- **Deep Learning-based Prediction of Cardiomegaly Disease from Thoracic X-ray Images using Convolutional Neural Networks**
  Download Link - https://ijsrem.com/download/deep-learning-based-prediction-of-cardiomegaly-disease-from-thoracic-x-ray-images-using-convolutional-neural-networks/

Education

- Computer Science and Engineering, B.Tech | Heritage Institute of Technology, Kolkata   SGPA : 8.49(2nd Year)
- XII(ISC) | Don Bosco School, Park Circus, Kolkata   Percentage – 89.75
- X(ICSE) | Don Bosco School, Park Circus, Kolkata   Percentage – 91.60

Skills

- **Front-end tools and frameworks** - React.js, HTML, CSS, Bootstrap, Javascript
- **Back-end tools and frameworks** – Node.js (Express.js), Java Spring Boot, Python Flask
- **Relational Databases** – Oracle SQL database, MySQL
- **Cloud Databases** – Firebase
- **Machine Learning Algorithms** – Decision Tree, Random Forest, K-Nearest Neighbours, Support Vector Machine, Naïve Bayes Classifier, Artificial Neural Networks
- **Deep Learning tools** – Python, Tensorflow, Keras, Scikit-learn
- **Data Analytics tools** – Python, Numpy, Pandas, Matplotlib, Seaborn, MS Excel
- **Object Oriented Programming Languages** – Java, C++, Python
- **Data Structures and Algorithms Languages –** Java, C