SAYAK BHATTACHARYA

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Education

Techno Main Saltlake | Kolkata, West Bengal
Information Technology | 08/2024
Second Year with 9.5 SGPA

Technologies / Frameworks

Python, Javascript, Java, C, C++, HTML, CSS, React JS, Next JS, Node JS, Flask, MongoDB, SQL, Supabase, REST API, GraphQL, Netlify, Vercel, Git, Github, Docker, Machine Learning, Tensorflow, Keras, Data Structure and Algorithms

Experience

Google Developer Student Club(GDSC) TMSL
ML Core Member | 08/2022 - Present

- Organizing and conducting regular workshops: As a core member of the **GDSC ML** team,I was responsible for organizing and conducting workshops on Machine Learning for interested students. This helped students to gain foundational knowledge in ML and understand its applications.
- Introducing basic ML concepts: In the workshops, we introduced basic ML concepts such as **supervised** and **unsupervised learning**, **decision trees**, **random forests**, and **neural networks**. Students acquired the core concepts of the underlying principles of ML.
- Hands-on practice: The workshops also provided students with hands-on practice on ML tools such as **Python** and **TensorFlow**. It facilitated the crowd to obtain practical experience in implementing ML algorithms and models
- As a proficient GDSC ML educator, I disseminated cutting-edge expertise on **Artificial Neural Networks** and Computer Vision(**CNN**) with **TensorFlow**, to a cohort of 100+ students, leveraging immersive instructional techniques such as gamification, code walkthroughs, and model building exercises.

Smart India Hackathon
Team Leader | 01/2022 - 04/2022

- Lead a team of 5 members to generate the initial prototype for a **Web Platform** that makes a preliminary diagnosis of neurological and cognitive disorders like Dyslexia and Dysgraphia.
- Built a prototype that demonstrated the features and the UI flow of the proposed model.
- Proposed a **machine learning model** using **TensorFlow** and sequential **Keras architecture** that used a binary class classifier to distinguish between patients.
- Guided the team to model a **sustainable** and **user-friendly design** that won us the second spot in the internal hackathon round.

Projects

[Tweet Sentiment Analysis with Roberta Transformer model](#)

- Designed a Python-based code that uses the **twitter-roberta-base** transformer model to analyze the sentiment of tweets from "The Telegraph" twitter channel. This model is a pre-trained transformer model that leverages the motivation behind **NLP** use-cases and can classify tweets based on their sentiment.
- Tech Involved: **Python**, NumPy, Pandas, **Transformers**, **SciPy**, Snscrape, **PyTorch**

[Biomedical Image Analysis - Malaria Cell Classification](#)

- Developed a **Computer Vision** model using Keras Functional API in TensorFlow that classifies instances of parasitized and uninfected cells from the thin blood smear slide images of segmented cells.
- Tech Involved: **Python**, **NumPy**, **Matplotlib**, **TensorFlow**, **Keras Functional** API and Pre-processor

[Full Stack Online Streaming Platform](#)

- Built a **Full Stack** Online Streaming Platform with essential functionalities such as **authentication**, **authorization**, **database connectivity** with rich and **flawless UI** [*Motion*]

- Tech Involved: **Next JS**, **MongoDB**, **Node JS**, **Express JS**, **REST API**, **Netlify** (for front end deployment) and **Render** (for backend deployment)

[Digital Portfolio](#)

- Built a professional, user-interactive and state of the art Digital Portfolio that houses award-winning UI interactions and acclaimed digital art styles.
- Tech Involved: **React.js**, **Framer-Motion**, **GSAP**, **Intersection Observer API**, **Sanity** (as a headless CMS) and **Vercel** for deployment.

Achievements

- Secured 1st runner up position in Smart India Internal Hackathon.
- Secured 2nd rank in technical hackathon, presented by Hoichoi.tech
- Got certified from Technex, IIT BHU for Data Analytics and Machine Learning project.
- Secured 27+ verified Google Cloud Skill Badges, including Kubernetes, BigQuery, and ML APIs. [*Profile*]
- [Python](#) and [Javascript](#) certified from Hackerrank.
- Kaggle certified in Machine Learning. [*Profile*]
- [Github Profile](#)