Tanvir Ahmed Palok

PORTFOLIO WEBSITE

+8801731040700

tanvir.ahmed.palok@g.bracu.ac.bd

github.com/tanvir193palok

linkedin.com/in/tanvir-ahmed-palok

Banasree, Block- E, Dhaka

TECHNICAL SKILLS

LANGUAGES: HTML, CSS, JavaScript(ES6), JSX , Java, Python, Sql

TOOLS: Git, Babel, ESLint, npm

LIBRARIES/FRAMEWORKS: Tailwind CSS, Bootstrap, Material UI, Styled-components, React, React Router, State Management(Redux, Context API), Axios , Framer Motion, React Beautiful DND, Three JS, React Scroll, Firebase, Pandas, Matplotlib, NumPy, Beautiful Soup, OpenCV, Scikit-image, Scikit-learn, Keras, TensorFlow, Selenium

PROJECTS (WEB DEVELOPMENT)

Portfolio Website

- My personal portfolio showcasing my skills, projects, social information.
- Used React, Tailwind CSS, Three JS, Framer Motion, React Scroll .

E-Commerce Website

- Created frontend part using react, styled components.
- Currently working on the backend learning Node to connect it with the frontend part.

Quiz Application

- A quiz application where user can login and register to give quiz, watch video of the topic, see progress and results.
- Used React, CSS for frontend part and firebase for fetching data.

Three JS Project

- A website with a 3D model(Shirt) that can be customized(Color, logo, texture) as user want .
- Created a AI bot which can generate texture as users prompt.
- Used React, TailwindCSS,for frontend and express for fetching Open AI api response for the AI bot.

Social Media Webpage

- Used Material UI 5 for building amazing MUI components.
- Created my own themes and components.
- Used customize styles (styled components)

AI Summarizer

- Creates summary from an URL.
- Different functionality like copy to clipboard, browser history storage.
- Used OpenAI's GPT model to produce response.
- React, Tailwind CSS, integration of Redux Toolkit query

EDUCATION

BRAC University
BSc in Computer Science | 2019 - 2023 | CGPA:3.49

CONCEPTS: Responsive Web Design, Component Lifecycle in React, Virtual DOM, React Hooks, Higher-Order Components (HOCs), React Router for navigation, Redux for state management, Asynchronous JavaScript (Promises, async/await), React Best Practices and Design Patterns, OOP (Object-Oriented Programming), Requirement Analysis, Agile Methodology, Data Science, Machine Learning, Deep Learning, Image Processing, Web Scrapping

CERTIFICATES

- **Intermediate SQL**
  DataCamp
- **Intermediate Python**
  DataCamp
- **Introduction to Data Science in Python**
  DataCamp
- **Cleaning Data in Python**
  DataCamp
- **Unsupervised Learning in Python**
  DataCamp
- **Machine Learning with scikit-learn**
  DataCamp
- **Machine Learning with Tree-Based Models in Python**
  DataCamp
- **Feature Engineering for Machine Learning in Python**
  DataCamp
- **Introduction to Deep Learning with Keras**
  Simplilearn
- **Deep Learning**
  Simplilearn

EXPERIENCE

Medical Image Reader Powered by Artificial Intelligence | **THESIS** | MAY 2022 - SEPTEMBER 2023 | **BRAC University**

- Detected 13 diseases among 18 classes of different types of Medical Images(X-ray, MRI, CT scan) with 94-96% accuracy .
- Used Deep learning, Image Processing, Transfer Learning, Data augmentation, Hyperparameter tuning, Ensemble learning.
- Using some Data Augmentation technique and Image Processing implemented our own Data Processing technique which have gained a better overall accuracy, reduced overfitting and gained a outstanding accuracy of 94.44% from 0% in the beginning on a class which has only 84 training sample, All the models have almost classified this class with an accuracy of (80-94.44)%.
- Implemented our own Ensemble Learning technique which gain better accuracy then other Ensemble Learning technique.

PROJECTS (DATA SCIENCE)

Disease Detection

- Dataset contains of different types of symptoms of 42 diseases.
- Applied different machine learning models like Logistic Regression, Decision Tree Classifier, K-nearest Neighbor Classifier, Gaussian Naive Bayes to show the best performed model on the training set, before and after data reducing.

Image Processing Project

- .Dataset contains 5 classes with imbalance sample of images.
- Applied SMOTE to balance the dataset with 500 samples per class.
- Used Label Encoder , Standard Scaler for preprocessing the train data.
- Used Logistic Regression, Neural Networks, CNN to get different types of result to understand the difference between the structures of this types of models.
- Applied Hyperparameter Tuning to get a better accuracy.

Fake News Prediction

- Used different preprocessing technique like replacing null value, merging data, stemming .
- Applied TfidfVectorizer to convert a collection of text data into a numerical representation using Term Frequency-Inverse Document Frequency (TF-IDF) technique.
- Training Logistic Regression with the training data gained an accuracy of 97.91% on test data.

Calories Burnt Prediction

Gold Price Prediction