Sourav Louha

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SUMMARY

Third-year B.Tech student at TMSL Salt Lake, specializing in Full Stack Development with AIML integration and a solid foundation in core Electronics and Communication Engineering. Proficient in building responsive web applications using Next.js, TypeScript, and TailwindCSS. Experienced in PCB design, circuit simulation, and embedded systems, with a passion for combining hardware and software to build end-to-end solutions. Successfully led and contributed to multiple projects, won three hackathons, and created innovative, user-focused digital products.

EDUCATION

Techno Main Salt Lake, 2022 – 2026
B.Tech - Electronics and Communication Engineering - CGPA - 7 Saltlake,West Bengal

Falakata Government High School, 2014 – 2022
Secondary- CGPA - 9.40 , Higher Secondary - CGPA - 9.47 Alipurduar,West Bengal

PROJECTS

Predicting Prices of Agri-Horticulture Commodities | Python, pandas, Streamlit Aug 2024

- Developed an MVP to forecast prices of 22 agricultural commodities using SARIMAX, enabling data-driven decisions for stakeholders. Built an interactive Streamlit web app with a dropdown menu for commodity selection and Plotly visualizing price trends. Implemented time-series forecasting with pandas and statsmodels, incorporating exogenous factors for enhanced accuracy.
- Visualized year-wise price forecasts, supporting strategic planning for agricultural markets.

Plant Disease Detection Using AIML | Python, CNN(Keras),OpenCV ,SARIMAX Mar 2024

- Developed a CNN-based image classification model using TensorFlow/Keras to detect diseases in plant leaves across multiple crop types with high accuracy.
- Utilized OpenCV for image preprocessing and augmentation, improving model robustness and generalization across varied conditions.
- Deployed an interactive Streamlit web app that allows users to upload leaf images and receive real-time disease predictions, enhancing accessibility for farmers and agronomists.

Movie_Recommender_System using AIML | Python, pandas, scikit-learn, Streamlit Apr 2025

- Developed a content-based recommendation engine using cosine similarity and TF-IDF vectorization.
- Processed and cleaned movie metadata with pandas to build a structured feature set.
- Built an interactive Streamlit web app allowing users to input a movie title and receive top-5 similar recommendations.
- Utilized scikit-learn for vectorization and similarity computation to deliver accurate and relevant suggestions.

Traffic_Signal_using_Finite_State_Machine | Feb 2025

- Objective The main objective of this and implement practical two way traffic signal using the concept of of finite State machine and design it on prointed Circuit board.

TECHNICAL SKILLS

- Languages: Python, C++, JavaScript, Java, SQL
- Technologies/Frameworks: HTML5, CSS3, React, MongoDB, Express, Javascript, Bootstrap
- Developer Tools: , VS Code, PyCharm, IntelliJ, Canva
- AI/ML Tools: Pandas, NumPy, Scikit-learn, Matplotlib, TensorFlow
- Electronics & Embedded Systems: PCB Design, Circuit Simulation, Microcontrollers (Arduino/ESP32), Proteus,

CERTIFICATIONS

- Introduction to Information Technology and AWS Cloud-coursera
- C++ - Udemy
- Java Programming for Beginners - Udemy

EXTRACURRICULAR

- Taught basic C++/DSA in offline Mode. 05-2023 – 12-2024
- Geekonix robotics club Member from 2022 to 2024