Soumi Ghosh

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EDUCATION

BTECH in Computer Science Engineering - Data Science   **Sep 2021 - Jun 2025**
Techno Main Salt Lake   **GPA:** GPA: 7.97
10th & 12th   **Jan 2013 - Jun 2021**
Daspur Vivekananda High School   **GPA:** 10th - 94.85 %, 12th - 90 %

WORK EXPERIENCE

Machine Learning Intern   **Aug 2023 - Nov 2023**
Feynn Labs India

Implemented a Decision Tree classification model to predict diabetes, achieving a 20% increase in accuracy to 92%. Reduced false positives by 30%, saving significant healthcare resources. Supported decision-making for 15+ stakeholders, improving diabetes management. Presented findings and recommendations to stakeholders through detailed reports and visualizations. Analyzed market segments and EV market trends. Developed a web app for diabetes checking, enhancing prediction accuracy through advanced ML models and data analysis techniques.

Data Science Intern   **Jul 2023 - Sep 2023**
CipherByte Technologies India

Engineered and implemented advanced data models that analyzed customer behavior patterns. Enhanced targeted marketing strategies, increasing campaign effectiveness by 40% and customer engagement by 15%. Assisted in the deployment and integration of advanced machine learning algorithms across multiple projects.

PROJECTS

Breast Cancer Detection ↗

Employed 20 features and calculated feature importance using Gini importance. Attained 98.2% accuracy with RandomForest, 97.36% with XGBoost, and 98.6% with SVM. Enhanced accuracy to 99.12% using SMOTE.

Diabetes Predictor ↗

Developed a diabetes prediction web application using a Decision Tree classifier achieving 92% accuracy. Optimized the model using techniques like feature scaling and handling class imbalance. Designed an intuitive web interface with HTML, CSS, and Flask to collect user inputs for key health metrics. Deployed the application for easy accessibility. The model effectively predicts diabetes risk, empowering users to make informed healthcare decisions.

MoodTune ↗

Developed a web based project that recommends songs/playlists based on user mood using NLP, Deep Learning, and LLMs. Integrated Google OAuth for secure user authentication and emotional input via interactive quizzes. Processed text input through emotion (9 classes) and sentiment (3 classes) models. Applied hybrid fusion (60% emotion + 40% sentiment) to generate a personalized mood vector. Fetched curated playlists via Spotify API including song title, album, and cover art.

SKILLS

Technical Skills: C, C++, Python, Java, SQL, Machine Learning, Deep Learning, Big Data, AI, DBMS, Data Mining
Soft Skills: Teamwork, Management, Communication, Leadership
Tools & Framework: MongoDB, Github, Scikit-learn, NetBeans, Java

CERTIFICATIONS

Journey to Cloud: Envisioning Your Solution ↗ by **IBM**   **May 2024**

AWARDS

GeeksforGeeks
Solve more than 300 problems, Streak: 380/1083
https://www.geeksforgeeks.org/user/ghoshsorqeq/
LeetCode
Solve more than 500 problems, Contest Rating 1453
https://leetcode.com/u/Soumi_Ghosh2003/
Smart India Hackathon by **Smart India Hackathon**
secured 1st position in College Level
Led a team project to create a sentiment analysis tool from textual data, involving data scraping from Twitter and developing a model using Twitter RoBERTa and tokenizers.

PUBLICATIONS

Towards Classifying Bird Sounds Using a Deep Transfer Learning Model on **on ICDMAI'2025 (Under Publish Procedure)**
Engineered a VGG-16-based CNN model with 97.31% accuracy for bird sound classification, advancing biodiversity conservation efforts.