Chanchal Saha

Santosh, Tangail-1902

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[GoogleScholar](#) | [Linkedin](#) | [Github](#)

EDUCATION

Mawlana Bhashani Science and Technology University`   **Santosh, Tangail | 2018-2023**

- Bachelor of Science
- Computer Science and Engineering
- **CGPA**: 3.50

Sirajgnaj Govt. College   **Sirajganj | 2017**

- Higher Secondary School Certificate, Rajshahi
- Group: Science
- **GPA**: 5.00

Sayadabad High School   **Sirajganj | 2015**

- Secondary School Certificate, Rajshahi
- Group: Science
- **GPA**: 5.00

SKILLS

- **Programming Languages:** C, C++, Java (OOP), Python
- **Python Libraries:** Pandas, Numpy, Scikit-learn, TensorFlow, Keras, Seaborn
- **Machine Learning:** Linear Regression, Logistic Regression, Decision Trees, Random Forest, SVM, XGBoost, Naïve Bayes
- **Deep Learning:** Convolutional Neural Networks (CNN), Transfer Learning (VGG16, ResNet50, EfficientNetB0, Inception, DenseNet121)
- **Natural Language Processing (NLP):** Text Preprocessing, TF-IDF, Word Embeddings, LSTM, Sentiment Analysis
- **Tools & Platforms:** Jupyter Notebook, Kaggle, GitHub
- **Databases:** SQL
- **Embedded Systems:** Arduino Programming

RESEARCH PAPER

- ❖ **Chanchal Saha** (First Author), et al. [**Dual-core silver-coated plasmonic sensor modeling with machine learning**](#) **Heliyon (Elsevier, Q1, Scopus & WoS indexed), 2024. Cited 14 times.**

PROBLEM SOLVING

Solving 800+ algorithmic probelems across multiple online judges including :
[Codeforces](#) (290) , [LeetCode](#)(268), [Beecrowd](#)(240), [UVA](#) (89)

PROJECT

- **Breast Cancer Histopathology Images Classification-** Data preprocessing augmentation, transfer learning with **ResNet50**, **EfficientNetB0, VGG16,** fine-tuning, achieved **90.41% accuracy** with confusion matrix & classification report.
- **SMS Spam Classifier-** Implemented baseline model with **TF-IDF** + **Naïve Bayes**, improved performance using **Logistic Regression** with **n-grams and fine-tuned with SVM** achieving **98.30% accuracy**.
- **Sentiment Analysis for Mental Health-** Applied **Logistic Regression**, **Multinomial Naïve Bayes** and **LinearSVC** to classify sentiment on mental health datasets, evaluated with **accuracy(76.36%) precision**, **recall** and **F1-score**.
- **Lung & Colon Cancer Classification-** Built CNN model with preprocessing and augmentation, trained & evaluated with accuracy **95.36%** and confusion matrix visualization.
- **Chest-X-Ray-Images-Pneumonia-Classification—**Used Transfer Learning with CNN models, evaluated using accuracy and classification report.
- **Titanic Survival Prediction** – Built classification models with feature engineering for survival prediction.
- **Iris Species Classification** – Applied classical ML algorithms for multi-class classification.

PARTICIPATION & ACHIVEMENTS

- ❖ Participated in **Line following Robot** competition **RoboTech Olympiad-2023, MBSTU –strengthened embeded system & robotics skills.**
- ❖ **12th** position in **Math Olympiad** of the IEEE Day celebration-2019 organized by IEEE MBSTU Student Branch **-- enhanced problem solving under time contraints.**
- ❖ Participated in the **Workshop** on **How to make Android control Robot** of the IEE Day celebration-2019
- ❖ Participated in **Intra Department programming contest 2018, 2019**
- ❖ **3rd** place in **Science project** at **PROTIVAR ANNESWNE-2015 (Sirajganj)**

Scholarship

- ✓ **Exim Bank Scholarship 2020-2023**

Soft Skills

> Teamwork, Communication, Problem-Solving, Research Writing.

REFERENCE

Dr. Mohammad Motiur Rahman
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Dr. Mostofa Kamal Nasir
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