DEBOJIT BASAK

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EDUCATION

Masters' of Science in Mathematics, Shahjalal University of Science and Technology.   2024-present
Bachelors' of Science in Mathematics, Shahjalal University of Science and Technology.   2019 - 2023
Relevant Coursework: Linear Algebra, Mathematical Statistics, Data Structure, Algorithms, Calculus, Data Mining, Research Methodology, Numerical Analysis, Discrete Mathematics

PUBLICATION

- Conference Paper: **Breast Cancer Diagnostics with Deep Learning: A CNN-Based Approach Using the CBIS** DDSM Dataset. (1st Author) Certificate
- Author of **"Data Science, A Comprehensive Guide for Beginners"** Book Link
- Final Year Project - **A Study on Normal Ideals of P-Algebra in 0-Distributive Lattices**
- **Rainfall Prediction Using Machine Learning and Neural Networks: A Performance Evaluation.** (1st Author) Paper Link

SKILLS

Programming Languages	Python, JavaScript, SQL, C++
Data Science / Data Analysis	Data Visualization (Matplotlib, Seaborn, Power BI, Tableau, Excel), Data Processing, Image Processing.
Machine Learning	Regression, Classification, CNN, Numpy, TensorFlow, Pandas, Scikit-Learn
Soft Skills	Organizing, Leadership, Management

CERTIFICATIONS

- **Nuts and Bolts of Machine Learning by Google** by Coursera
- **Supervised Machine Learning: Regression and Classification by Deep Learning.Ai and Stanford online** by Coursera.

PROJECTS

- **Semantic book recommender using LLM:** Used vector search, sentiment analysis, and Hugging Face to recommend books to the users. Project Link
- **PDF chatbot using LLAMA:** Used a large language model to analyze the PDF provided by the user to give feedback, suggestions, and related answers asked by the users. Project Link
- **Predicting Higgs particle event using Neural Network:** Developed a neural network to predict the event of Higgs particle. Project Link
- **Build CNN model to diagnose Pneumonia:** Used the images of chest x-ray of patients to build a CNN model and diagnose Pneumonia. Project Link
- **Breast Cancer Classification Using CNNs:** Developed a CNN-based diagnostic tool for breast cancer detection. Project Link
- **Skin Cancer Classification Using Transfer Learning:** Used pre-trained ResNet for skin lesion classification on ISIC dataset. Project Link
- **Bengali Article Classification:** Built an NLP system for classifying Bengali articles into multiple categories using Logistic Regression and BERT. Project Link
- **Twitter Sentiment Analysis Using Natural Language Processing:** Conducted NLP for sentiment analysis of tweets during the COVID-19 pandemic. Project Link
- **Text Generation with RNNs:** Implemented LSTM-based recurrent neural network for generating coherent text sequences. Project Link
- **Movie Recommendation System:** Designed a movie recommender system using collaborative and content-based filtering techniques. Project Link
- **Air Quality Prediction Using Facebook Prophet:** Predicted air quality levels with time-series forecasting

using Facebook Prophet. Project Link
- **Autism Prediction Using Machine Learning:** Developed an XGBoost-based model to predict Autism Spectrum Disorder (ASD). Project Link

EXPERIENCE

Linkedin Newsletter Creator   May 2024 - Present

DataScientister, A LinkedIn based newsletter based on Data Science and Machine Learning.
- Having more than 150+ subscriber and still growing
- Published more than 10+ articles regarding machine learning.

Online tutor on Data science and machine Learning   January 2025 - present

Internship   Feb 2024

Boston Consulting Group (BCG) Data Science -   *Forage.com*
- Completed a customer churn analysis, demonstrating advanced data analytics skills, identifying essential client data and outlining a strategic investigation approach. .
- Conducted data analysis using Python (Pandas and NumPy).Employed data visualization techniques. Used Random Forest model for predictions (Accuracy 92%)

Internship   Feb 2024

PwC Switzerland Digital Intelligence -   *Forage.com*
- Completed data analysis and modeling for the Digital Intelligence team.
- Built Python classification models (SVM, Random forest classifier - got an accuracy of 92%), analyzed feature importance, and created visual representations.

Contest Corrdinator   April 2023 - Present

Euclid Programming Club (EPC), Dept. of Mathematics -   *Shahjalal University of Science and Technology*
- Conducted 7 programming contests both onsite and online,
- Conducted 3 workshops on Programming
- Arranged 2 Seminars on research and career.

Managing Associate at RoboAdda   Dec 2020 - Jan 2022
- Conducted workshops on Robotics for absolute beginners with 600+ participants.
- Build Tutorial module for C programming language.
- Conducted 3 webinars on related fields.

VOLUNTERING EXPERINECE

Volunteer   Dec 2021 - Present

KIN, A Volunteering Organization -   *Shahjalal University of Science and Technology*
- Participated in winter cloth distribution among underprivileged people in 2021, 2022, 2023.
- Participated in Organizing a relief camp for flood-affected people in Sylhet, Bangladesh in 2022.
- Organized charity book fair for the treatment of an underprivileged child in September 2022.
- Organized blood donation camp at our campus and collected 50+ bags of blood and conducted camping regarding awareness of blood donation in February 2023.
- Organized a charity concert for the treatment of an underprivileged child in October 2023.