Shahidul Haque Shaheen

PROFILE

I am passionate about Data Science, with two years of learning and practical experience. I have strong programming skills and enjoy solving data problems. My dedication to learning helps me constantly improve my abilities and understanding in this field. I am hardworking, determined, and always eager to grow, seeking opportunities to expand my knowledge and make meaningful contributions in Data Science.

EDUCATION

BRAC University FALL 2019 – FALL 2023

B.Sc. in Computer Science and Engineering

Relevant Courses: Data Structures, Algorithms, Database Systems, Artificial Intelligence, Neural Networks, Mathematics for Machine Learning and Signal Processing, Machine Learning, Software Engineering.

SKILLS SUMMARY

Programming Language: Python, SQL, JAVA, HTML, CSS, C, C++.

Python Libraries : Numpy, Pandas, Matplotlib, Seaborn, Scikit-learn, TensorFlow, Keras, NLTK.

Machine Learning : Supervised Learning (Linear Regression, Logistic Regression, Naïve Bayes,

Decision Trees Polynomial Regression, Regularization, Gradient Descent), Unsupervised Learning (K-Means Clustering, Principal Component Analysis

CGPA: 3.58/4.00

(PCA)).

Deep Learning : Artificial Neural Networks (ANN), Convolutional Neural Networks (CNN),

Recurrent Neural Networks (RNN), Long Short-Term Memory (LSTM).

Natural Language Pro-: Text Preprocessing, Tokenization, Sentiment Analysis.

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Feature Engineering : Feature Scaling (Normalization, Standardization), Encoding (One-Hot, La-

bel, Target), Feature Selection (Mutual Information), Dimensionality Reduction

(PCA, t-SNE), Handling Missing Data, Outlier Detection.

Software : Microsoft Power BI, XAMPP, MySQL Workbench.
Office Application : Excel/Sheets, Word/Docs, PowerPoint/Slides, LaTeX.

Soft Skills : Organizing, Collaborating, Teaching, Writing.

NOTABLE PROJECTS

- Real Estate Price Prediction using Data Science GitHub Link.
 - Developed a predictive model to estimate real estate prices based on historical data.
 - Used Python with Pandas, NumPy, and Scikit-Learn for data preprocessing and model building.
 - Implemented regression algorithms like Linear Regression and DecisionTreeRegressor.
 - Evaluated model performance using Cross Validation and GridSearchCV.
- Spam Message or Email Detector using Machine Learning GitHub Link.
 - Built a classifier to detect spam messages and emails with high precision.
 - Applied NLP techniques like tokenization and TF-IDF vectorization.
 - Used Python with Scikit-Learn to train models, including Naïve Bayes.
 - Evaluated model performance using accuracy, precision, and recall.
- SQL Case Study on Data Science Job Salaries <u>GitHub Link</u>.
 - Conducted SQL-based case studies on real-life datasets to analyze job salaries in data science.
 - Used SQL queries to extract insights and answer business-related questions.
 - Organized the case study into structured components: Question, Query, and Output.

- Machine Learning Algorithm Implementations GitHub Link.
 - Implemented fundamental ML algorithms like Gradient Descent, Linear Regression, and Logistic Regression.
 - Explored Polynomial Regression and Regularization techniques (Lasso, Ridge) to prevent overfitting.
 - Used NumPy, Pandas, and Scikit-Learn for model building and experimentation.
 - Provided clear explanations and code implementations for understanding core ML principles.
- Pandas Series and DataFrame Learning & Practice GitHub Link.
 - Explored Pandas Series and DataFrame operations with real-world datasets.
 - Performed data manipulation, cleaning, and preprocessing tasks.
 - Conducted exploratory data analysis (EDA) and generated analytical insights.
 - Applied Pandas functions like GroupBy, Pivot Tables, and Merging datasets.
 - Used NumPy, Matplotlib, and Seaborn for data visualization and deeper analysis.
- Feature Engineering Project GitHub Link.
 - Explored techniques for Feature Construction and Feature Transformation.
 - Implemented **Pipelines** to streamline feature engineering processes.
 - Applied **Principal Component Analysis (PCA)** for dimensionality reduction.
 - Used pandas, scikit-learn, and NumPy for feature extraction, transformation, and evaluation.

RESEARCH EXPERIENCE

Undergraduate Research / Thesis — BRAC University - GitHub Link.

- Conducted an undergraduate thesis on Deep Learning (Image Classification) under the supervision of Dr. Jannatun Noor.
- Title: CattleSavior: Towards Implementing an Advanced External Disease Detection System through Deep Learning.

RESEARCH INTEREST

• Machine Learning

• Image Processing

• Natural Language Processing

• Human Computer Interface

• Generative artificial intelligence

REFERENCES

• Deep Learning

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