Syed Md. Afraim

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SUMMARY

Fresher, with over 1.5 years of data science and machine learning experience paired with competitive programming expertise, I am proficient in Machine Learning, Data Science and Software Engineering.

SKILLS

Languages: Bangla, English, Arabic

Hard Skills: Python, Django, FastAPI, Flask, HTML, CSS, JS, Bootstrap, Mysql, Postgresql, Powerbi, Tableau, Ms Excel

Technical Skills: Git, Version Controlling, CI/CD, Numpy, Pandas, Tensorflow, Keras, Matplotlib, NLP, Ms. Word, Ms. Powerpoint

Soft Skills: Communication, Teamwork, Problem-solving, Interpersonal, Self-Motivated, Time Management, Adaptability.

EXPERIENCE

Machine Learning Intern
Grow with Data **November 2023 - January 2024, Dhaka**

• Conducted in-depth quantitative and sentiment analysis using **Python**, **NLTK**, and **Machine Learning algorithms** to generate predictive share numbers for news articles, resulting in a high **RFR score of 86.4%** and **R2 score of 63.8%**, demonstrating effective use of data analytics to forecast user engagement.
• Employed **RASA NLU** and **RASA Core** within the **RASA framework** to seamlessly integrate responsive chatbots into websites, providing a sophisticated conversational experience for users and streamlining customer service interactions.
• Designed a custom food order chatbot that successfully launched on a restaurant's website, decreasing the customer ordering time by 20% and earning recognition for technological innovation.

PROJECTS

News Article Shares Prediction (ML Web)
https://github.com/smafraim/News-Articles-Share-Prediction-using-Machine-Learning • August 2023 - October 2023

• Utilized **Python**, **NLTK**, and Machine Learning algorithms for comprehensive analyses, achieving an **86.4% RFR** and **63.8% R2 score** in predicting article shares, and engineered a **FastAPI** machine learning integration, highlighting expertise in data analytics and tech deployment.
• Streamlined data preprocessing in Python, cutting preparation time by 25%, enhancing analysis efficiency.
• Uncovered key trends in news sharing, accurately predicting sales volumes **67%** of the time, demonstrating adeptness at interpreting complex data.

Bangladesh AQI Prediction (ML Web)
https://github.com/smafraim/BD_AQI • June 2023 - July 2023

• Developed an advanced **Python** and **scikit-learn** based machine learning model for forecasting Bangladesh's AQI through **Flask**, enhancing environmental health efforts and achieving a **99.998% accuracy rate**, demonstrating precision in environmental data analysis.
• Refined the model's performance by integrating a **Random Forest Regressor** and employing **RFECV** for optimal feature selection, resulting in a robust predictive framework and a **15%** reduction in AQI forecasting errors.
• This detailed and precise approach to modeling provided stakeholders with accurate AQI predictions, supporting decisions aimed at improving air quality and public health.

Flight Fare Prediction (ML)
https://github.com/smafraim/Flights-fare-prediction • April 2023 - July 2023

• Significantly enhanced flight fare prediction accuracy, achieving an impressive **R2 score of 80.3%**, which facilitated the refinement of pricing strategies for competitive advantage in the airline industry.
• Employed advanced machine learning techniques, including **Recursive Feature Elimination with Cross-Validation (RFECV)** and **Random Forest Regressor**, to optimize the predictive model, outperforming previous experiments by a

5% increase in performance.
• Conducted extensive analysis of fare prices across **10,683 airlines**, laying the groundwork for future insights and data-driven decision-making in fare pricing.

Fashion Item Recognition (DL)
https://github.com/smafraim/DL_Fashion-items-recognition • October 2023 - December 2023

• Utilized a **Convolutional Neural Network (CNN)** for fashion item recognition, achieving a high test and classification accuracy of *93.69%*.
• Constructed a model architecture featuring a **32-filter Conv2D layer**, **a MaxPooling2D** layer for spatial dimension reduction, **a 128-filter Conv2D** for deeper feature extraction, **a Flatten layer** to convert input into a 1D array, and **Dense layers with 128 and 10 units** for learning feature combinations and class predictions, respectively.
• Improved a convolutional neural network for fashion item recognition to achieve accuracy of **0.92129** (up from 0.8645) by changing the learning rate and batch size.

AWARDS & HONORS

Best Performer, Comprehensive Data Science Bootcamp
International Islamic University Chittagong • 2023
• It validates my dedication to continuous learning and passion for data science. This achievement reflects my commitment to honing my skills and contributing meaningfully to the field, motivating me to strive for excellence.

EDUCATION

Bachelor of Science in Computer Science & Engineering
International Islamic University Chittagong • Chittagong, BD • 2024 • CGPA: 3.57

EXTRA-CURRICULAR ACTIVITIES

Team Scheduler Coordinator
IIUC Basketball Club • January 2021 - March 2022
• Oversaw the development and management of playtime timetables, ensuring optimal organization and utilization of resources for the IIUC basketball team events.
• Spearheaded the recruitment process and effectively managed a 3v3 basketball team, fostering teamwork and competitive spirit within the group.
• Actively participated in basketball games, demonstrating hands-on involvement and commitment to the sport.