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OBJECTIVE

I am a passionate Data Science and Machine Learning researcher with over 3 years of hands-on experience. Currently, I am looking for a better opportunity where I can learn a lot by taking new challenges and utilize my solid technical and theoretical skills to help the company achieve business goals.

EDUCATION

Jul 2019 **B.Sc. in Electronics and Telecommunication Engineering**

Jan 2015 *Rajshahi University of Engineering & Technology (RUET), Bangladesh*

CGPA: 3.61/4.00

Relevant Courses: Computer Fundamentals and Programming, Data Structure and Algorithm, Numerical Methods in Engineering, Transform Techniques and Linear Algebra, Complex Variable and Statistical Analysis, Calculus and Matrices, Differential Equations & Three Dimensional Geometry, Microprocessor and Interfacing, Data Communication and Computer Networks, Information Theory, Project Planning and Legal Issues.

EXPERIENCE

Current **Data Scientist**

July 2021 **SSL Wireless**

Project 1: Customer Segmentation

Description: In this project, I have analyzed millions of customers' data and performed customer segmentation for target marketing. As this company provides the largest payment gateway and SMS gateway aggregator of Bangladesh, per week millions of data generates here. We build a model using clustering algorithm that will automatically segment all of the data using customers' transaction profile.

Project 2: Invoice Information Parser

Description: In this project, we built a deep learning model that automatically detect all of the information from invoices of different formats. We applied the Cloud Vision AI API for recognizing the optical characters from image, and applied pretrained detectron2 algorithm for detecting the tables from the image of invoices. Additionally, we build some complex algorithms to organize the table formatted data as the original format.

June 2021 **Data Scientist**

Oct 2019 **Axiata Group Berhad**

Robi Axiata Limited (Bangladesh), Axiata

16 Jan 2021 – 31 June 2021

Project 1: Churn Prediction

Description: In this project, I have built a DNN model for predicting whether a customer of **Robi Axiata Limited** will be churn or not within the following two months. We have used around 1.2M samples data with 41 features to train this churn prediction model. Also, I have built an interactive dashboard using Tableau to visualize the churn related insights obtained from the dataset.

Project 1: Next Best Offer prediction (NBO)

Description: This project was for the Campaign and Customer Lifecycle Management of *Robi Axiata Ltd.* In this project, I developed a DNN model that recommend the next best data pack for each of the subscribers based on their previous data usage behavior to increase company's total data revenue. I trained this model with around 1M customers' 29 attributes.

Project 2: Khmer NLP

Description: This project was for *Smart Axiata*, the leading telecom operator in Cambodia, to analyze the Smart's Facebook and Chatbot's data efficiently. In this project, firstly, I built a pre-trained model for the Khmer language from scratch using BERT. For generating the training corpus, I built a Web Scraper by which I collected around 100K Khmer articles from several websites. Also, I modified google BERT official code to make compatible with Khmer language. Then, using Transfer Learning, I have developed three deep learning models for the three different applications such as Sentiment Analysis, Topic Classification, and NER. I deployed the model using Google Cloud Function API and Docker.

Project 3: Gross Addition Revenue Maximization and Automation

Description: The objective of this project was maximizing the GA revenue of *Robi Axiata Limited* by quality acquisition. We trained a DNN model to predict the number of quality acquisition for each of the retailers over the country. We also performed the E2E automation so that the model automatically set the GA target for each of the retailers each month. We also built a Tableau dashboard that automatically visualizes the analysis of the model outcomes and retailers' activities to the decision makers.

*Sep 2019***Machine Learning Engineer***Aug 2019**Silicon Orchard Limited, Bangladesh***Project 1: Assessment Summarizer**

Description: The goal of this project was to build a tool using the NLP techniques for the Human Resource division of a company to make the recruitment process fast. In this project, I automated the assessment process of the CV using several NLP methods such as Glove, WMD, etc.

Project 2: Fraud Detector

Description: The goal of this project was to detect fraudulent reviews by leveraging reviewer historical stylometrics in Amazon, Yelp, Facebook, and Google Reviews. In this project, I formed an efficient and sophisticated algorithm to detect fraudulent reviews using Natural Language Processing techniques.

*Jul 2019***Academic Research Experience***Mar 2018**Rajshahi University of Engineering & Technology, Bangladesh***Research Field: Applied Data Science and Machine Learning**

Thesis Title: Predicting the Performance of Undergraduate Students

Supervisor: A. S. M. Badrudduza

Description: My thesis period can be divided into two phases: In the first phase, I performed classification analysis on the educational transcript's data and developed a machine learning model that classifies undergraduate students' performances. Several classification techniques such as Gradient Boosted Tree, Random Forest, Tree Ensemble, Decision Tree, SVM, and KNN had been tested on the educational data. In the second phase, I performed regression analysis on the same dataset where I designed a Deep Neural Network (DNN) architecture and developed a model to predict the students' final CGPA.

Research PROJECTS & PUBLICATIONS

[Google Scholar](#)[Dblp](#)

- [1] Md Rifatul Islam Rifat, Abdullah Al Imran. "Pre-training Transformer Models for Sentiment Analysis and News Classification in Khmer." *Transactions on Asian and Low-Resource Language Information Processing*, ACM, 2020.
- [2] Al Imran, Abdullah, Md Rifatul Islam Rifat, and Rafeed Mohammad. "Enhancing the Classification Performance of Lower Back Pain Symptoms Using Genetic Algorithm-Based Feature Selection." *Proceedings of International Joint Conference on Computational Intelligence*. Springer, Singapore, 2020.
- [3] Md Rifatul Islam Rifat, Abdullah Al Imran, and A. S. M. Badrudduza. "EduNet: a deep neural network approach for predicting CGPA of undergraduate students." *2019 1st International Conference on Advances in Science, Engineering and Robotics Technology (ICASERT)*. IEEE, 2019.
- [4] Md Rifatul Islam Rifat, Abdullah Al Imran, and A. S. M. Badrudduza. "Educational performance analytics of undergraduate business students." *International Journal of Modern Education and Computer Science* 11.7 (2019): 44.
- [5] Al Imran, Abdullah, Md Nur Amin, Md Rifatul Islam Rifat, and Shamprikta Mehreen. "Deep Neural Network Approach for Predicting the Productivity of Garment Employees." In *2019 6th International Conference on Control, Decision and Information Technologies (CoDIT)*, pp. 1402-1407. IEEE, 2019.
- [6] Mahmud Hasan Munna, Md Rifatul Islam Rifat and A. S. M. Badrudduza. "Sentiment Analysis and Product Review Classification in E-commerce Platform" In *23th International Conference on Computer and Information Technology (ICCIT)*, IEEE, 2020.

TECHNICAL SKILLS

Programming Languages:	Python, C++, C, Java SE, Assembly_8086, MATLAB
Machine Learning Tools:	Pandas, NumPy, SciPy, Scikit-Learn, TensorFlow, Keras, KNIME
NLP Tools:	BERT, NLTK, Gensim, spaCy, polyglot, CoreNLP
Visualization Tools:	Tableau, PowerBI, Data Studio, Plotly Dash, Matplotlib, Seaborn
Database Systems:	Oracle, PostgreSQL, MySQL, MongoDB
Big Data Tools:	Apache Spark (PySpark, Spark SQL, MLlib)
Cloud Platforms:	Google Cloud Platform (GCP), Amazon Web Services (AWS)
Development Skills:	Flask, FastAPI, Web Technologies (Web Scraping, Selenium, HTML, CSS)
Version Control:	Git
Operating Systems:	Ubuntu, Windows, Linux Mint

ACHIEVEMENTS

2020	Certified Robi AAA-2020 after successfully completed the training on three subject matters: Analytics, Artificial Intelligence, and Agility.
2019	1st Runner Up as a Data Scientist at Robi Axiata Datathon 2019, Bangladesh
2019	Finalist at Financial Inclusion Data Hackathon, UNCDP Bangladesh
2015-2018	Technical Scholarships, RUET

EXTRACURRICULAR ACTIVITIES

2018 – 2018	Member at Innovation Society of RUET (ISR)
2015 – 2018	Member at RUET English Club
2017 – 2018	Member at Electronics Society of RUET (ESR)

REFERENCES

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