MD TAJRIYAAN CHOWDHURY

DATA SCIENTIST

I am an experienced tech professional with industry-applied problem-solving skills and strong leadership acumen. Passionate about continuous learning, I thrive in diverse roles, streamlining processes, and overcoming industry challenges. In my current role, I tackle digitization and big data challenges in the financial services sector

📞 : (+88) 01688354174, (+44) 07395650124

✉ : tajriyaanchowdhury97@gmail.com

🏠 : House 13, Flat 8, Road 128, Dhaka -1212

🌐 : https://tajriyaan.website/

in : https://www.linkedin.com/in/tajriyaan-chowdhury/

⚙ TECHNICAL SKILLS

Programming Languages: HTML5, CSS, Python, C, JavaScript, R, jQuery, Embedded C, Node JS, MATLAB
Frameworks: Flask, Django, Pandas, Matplotlib, NLTK, NumPy, Plotly, SciKit-Learn, Bootstrap, Docker
Tools: Oracle Cloud, MS Office, Google Cloud Services Platform, GitHub, Jira, Google Maps API, MQTT, C-Panel, Power Query, Arduino, AWS, REST API, Figma
Database: MySQL, SQLite, Mongo DB, PostgreSQL, Oracle DB

💼 RELATED WORK EXPERIENCE

The City Bank Limited, Dhaka
Data Scientist – Assistant Manager
Dec 2022 - Present

Digital Agro-Loan Platform
- Pioneered the design and implementation of City Bank's (IFC owned entity) end-to-end digital loan recommendation web platform with the first internal credit rating engine in collaboration with Credit Division enhancing the loan approval process by 99% and ensuring adherence to regulatory standards.
- Achieved significant time reduction and operation efficiency for Agent Banking's loan approval from 1 hour to 0.5 seconds a file enabling assessment of 5000 loan files per day.

Bank Statement Analyzer
- Applied NLP techniques to automate income statement validation, resulting in an 80% improvement in operational efficiency.
- Accomplished a 15% increase in retail business growth through the application of customized promotions based on insights of customer spending behavior.

iFarmer Limited, Dhaka
Machine Learning Engineer
Sept 2021 – Nov 2022

KYC & Credit Risk Score
- Engineered a credit rating model based on 10,000 farmer profiles, transactions, and KYC to help the firm and banks (Standard Chartered Bank, UCB, Brac Bank) rank and make informed loan decisions in 20 seconds using classification model (Random Forest).
- Applied data processing and exploratory data analysis techniques to investigate and gain insights from farmer purchase and sales activity and proposed relevant and reduced bias KYC fields for farmer profiling.

Connected Cow
- Automated real-time reporting dashboard (Google Sheets) and fine-tuned Machine Learning application with data wrangling techniques (Rolling average, Euclidean distance) on big data to detect estrus of cows with 70% accuracy for Unsupervised Learning (Classification with Clustering Algorithm).
- Hosted Mosquitto Broker and Mongo DB on AWS EC2 server to store and monitor cow daily activities.

Intelligent Soil Sensor
- Productionized soil sensing program (Flask, Docker) to predict NPK lab values and generate fertilizer advisory, improving crop yield and service efficiency from 20 mins to 5 mins using Supervised Learning (Linear Regression).
- Conducted hypothesis tests (z-test, t-test, an-nova Test, A/B Testing) to validate proof of concept.

Remote Sensing
- Developed software for geospatial analysts to remotely fetch and assess crop stress data in 30 seconds (nitrogen deficiency, moisture level, pest attack) using Google Earth Engine & EOS platform and AWS (S3 Bucket).

Oncosys International, Dhaka
Developer & Business Strategist
Mar 2021 – Aug 2021

- Increased global business revenue by 30% by building digital portfolio.
- Formulated and administered OKRs to existing operations and established new business of UK consumer electronics brand with product portfolio of 30 items.

Datasoft Manufacturing & Assembly Inc. Limited, Dhaka
Internet of Things Engineer
Oct 2020 – Jan 2021

Grameenphone Smart Home
- Scripted REST API (Flask Framework) to link with Robi SMS Gateway, which increased device communication by 20%.
- Resolved program flow issues and bugs to ensure the seamless operation of deployed hardware and software

University of Nottingham, United Kingdom
Software Developer
Oct 2019 – Oct 2020

IRSYS – Irrigation Recommendation System
- Created an optimized real-time web dashboard for irrigation (HTML, Bootstrap, JavaScript) to produce recommendation results with 95% accuracy
- Implemented MQTT protocol and socket.IO (Node JS) for seamless data transmission between device and server connection.

Datasoft Systems Limited, Dhaka
IOT Developer
Jun 2019 – Aug 2019

Bluetooth Low Energy (BLE) Technology Based Smart School
- Implemented Attendance Tracking system, increasing classroom attendance by 30% and improving proximity detection accuracy by 90% with Zonal Classification and Trilateration Algorithm.

Vehicle Tracking using Global Positioning System (GPS)
- Developed a web application for real-time vehicle monitoring (GPS technology, Google Maps API) and an optimized algorithm to minimize buffer to 2 seconds.

🎓 EDUCATION

University of Nottingham
BSc Hons Computer Science with Artificial Intelligence
Sept 2017 - Jun 2021
Awards: First Class, BCS Certified

University of Nottingham
Foundation in Engineering
Jul 2016 - May 2017

Sunbeams School
IGCSE O-Levels
May 2014

✦ EXTRACURRICULAR ACTIVITIES

University of Nottingham   Sept 2016 – Jun 2019

Student Learning Community Forum
Enhanced student academic experience with open feedback sessions.

Student Ambassador (Faculty of Computer Science)
Guided & supported students with technical support and awareness campaigns.

University Basketball Team
Qualified among 100 candidates to compete in university leagues.

International Cultural Nights (Malaysia & United Kingdom)
Participated in group activities with international students in UK and Malaysia campus to encourage student engagement.

TEDX UON, Malaysia   Sept 2018

Core organizer, Logistics & Operations Director
Acquired sole license for hosting the first TED TALK at the University of Nottingham Malaysia Campus and conducted event management of 20 speakers and 300 guests. Highlighted as an article on University official magazine, Ignite.

BELTA INTERNATIONAL CONFERENCE   Jul 2014

Head Volunteer
Volunteered in a 4-day international conference in Dhaka, Bangladesh and conducted registration, booth management, event setup, meet and greet of international guests

▤ PROJECTS

- Linear Regression to predict house prices – Scikit Learn, Pandas, Matplotlib
- Credit Card Fraud Detection with Linear Classification – Scikit Learn, Pandas, NumPy.
- KNN, Decision Trees, Support Vector Machines – MATLAB, Pandas and NumPy.
- Refined Search Strategies to Minimize Training Errors using Neural Networks – MATLAB.

👔 ADDITIONAL INFORMATION

Languages: English, Bengali, Hindi, Urdu.

Hobbies: Fitness, Movies, Sports, Cooking, Acting, Stage, Public Speaking.

Fields of Interest: Web Development, Machine Learning, Internet of Things, Data Science.

Work Eligibility: Eligible to Work, will require sponsorship.

🤝 REFERENCES

Available on Request