Tasfia Tabassum Katha

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EDUCATION

The University of Texas at Dallas — May 2024
Master of Science, Business Analytics — **GPA 3.95**

- Scholar with High Distinction | Recipient of Dean's Excellence Scholarship | Data Science Club
- Coursework: Machine Learning, Deep Learning, Big Data, Database, A/B Testing, Econometrics, Predictive Analytics

Institute of Business Administration, University of Dhaka — June 2020
Bachelor of Business Administration, Finance

TECHNICAL SKILLS

Programming: SQL, R, Python || **Data Analysis and Visualization:** Tableau, Power BI, Microsoft Excel || **Databases:** MySQL Workbench, Oracle DB, Microsoft SQL Server, MongoDB || **Big Data Technologies:** Hadoop, Apache Spark || **Cloud Computing:** Amazon Web Services || **RPA Tools:** Alteryx, UiPath, ACCELQ

WORK EXPERIENCE

Graduate Teaching Assistant — **August 2023 – May 2024**
The University of Texas at Dallas

- Graded assignments and exams for 300+ students in 3 graduate-level courses: Applied Machine Learning, Econometrics and Time-series, and Database Foundations, supporting faculty members
- Enhanced student participation and engagement by 25% via proactive feedback and weekly problem review sessions

Business Analyst — **January 2021 – June 2022**
Bkash Limited

- Achieved a 53% increase in transaction volumes and a 44% annual customer growth by tailoring segment-specific strategies, leveraging clustering techniques on 1.2M+ monthly users for precise ad targeting
- Boosted revenue from $54M+ to $66M+ by utilizing data-driven insights and market analysis to secure 9 new deals for client acquisitions
- Reduced customer churn by 23% through analyzing customer attrition using time-series models and conceptualizing a product development feature 'schedule reload' in the Bkash app
- Saved 10 hours weekly on manual reporting by automating and developing Tableau dashboard for monitoring 15 KPIs
- Improved data quality and accelerated processing by 20% through optimizing ETL pipelines to meet business needs

PROJECTS

Small Business Administration (SBA) loan default classification with Python

- Executed descriptive analysis, data cleaning, and feature engineering on a dataset comprising 800K+ small businesses
- Trained predictive models using machine learning algorithms, including gradient boosting, decision trees, and random forest; achieved 89% accuracy in classifying default loans through hyperparameter optimization

Satellite-based prediction of rice cultivation with Python

- Enhanced satellite data extraction through cloud and pixel masking, bounding box, and clustering labels techniques
- Implemented temporal analysis to discern rice cultivation patterns across seasons and trained machine learning models to predict rice fields from satellite data with 94% accuracy

Walmart sales forecast using machine learning

- Designed a blueprint for building and deploying a machine learning pipeline utilizing 8+ AWS tools (Glue, Sagemaker, Forecast, Athena) to predict sales performance for Walmart

ADDITIONAL

- **Certifications:** UT Dallas Graduate Certificate in Applied Machine Learning, Google Data Analytics, IBM Data Science, UiPath RPA Business Analyst Foundation, ACCELQ Automation Engineer, Alteryx Foundation Credential
- **Awards:** Winner of ISCEA PTAK global supply chain case competition out of 400+ participants, 1st runner—up of Samsung EDGE nationwide business case competition out of 150+ teams
- **Eligibility:** VISA, Eligible to work in the US for internships and full time for up to 36 months without sponsorship