# **Nuzhat Prova**



Experienced Data Scientist with an MS in Data Science from Pace University, proficient in statistical analysis, machine learning, and data visualization. Skilled in Python, R, SQL, and diverse data science technologies, including deep learning and AI. Demonstrated success at Speedoz Ltd. in leveraging predictive modeling, data wrangling, and advanced analytics to fuel business growth, enhance operational efficiency, and deliver actionable insights. Committed to pioneering algorithmic advancements and tackling intricate data processing challenges to push the boundaries of data science.

#### **EDUCATION**

Pace University, Seidenberg School of Computer Science and Information Systems Master of Science (MS) in Data Science | GPA: 3.71

New York, NY 2023 to 2024

North South University, School of Business and Economics
Bachelor of Business Administration (BBA) in Finance | GPA: 3.33

Dhaka, Bangladesh 2007 to 2011

#### RELEVANT COURSEWORK

Python Programming | DBMS | Machine Learning | Artificial Intelligence | Algorithms for Data Science | Data Mining | Scalable Databases | Mathematical Foundation of Analytics | Introduction to Data Science | Analytics Capstone Project

## **TECHNICAL SKILLS**

- **Programming Languages**: Proficient in Python.
- Database Management: Experienced with MySQL, PostgreSQL, MongoDB, SQLite.
- Data Visualization Tools: Skilled in Tableau, Power BI, Excel, Dash, Plotly.
- Libraries & Frameworks: Proficient in Pandas, Numpy, Scikit-learn, Scipy, Matplotlib, Seaborn, Keras, TensorFlow, PyTorch, Spark, Kafka.
- Machine Learning & AI: Expertise in Supervised, Unsupervised, Deep Learning algorithms, Neural Networks (NN, CNN, RNN, LSTM), NLP,
   Computer Vision, GAN, Transformer, Embedding, Prompt Engineering for AI applications.
- Cloud Computing: Proficient in Microsoft Azure (including Azure Data Factory ETL, Azure Data Bricks, Azure Synapse Analytics), Hadoop.

## **CERTIFICATIONS**

Certifications: IBM Data Science Professional Certificate, IBM Data Engineering Professional Certificate, IBM AI Engineering Professional
Certificate, Complete Data Science Bootcamp 365 Careers Udemy, Google Data Analytics Professional Certificate, Prompt Engineering
Certification. [Github]

## **ACADEMIC PROJECTS**

- **Healthcare Fraud Detection using ML:** Designed and executed a dynamic healthcare fraud detection system, employing real-time processing and automated retraining, refined by extensive hyperparameter tuning, and validated by SHAP analyses, achieving a top accuracy of 92.80% with the Stacking Ensemble model. [Github]
- YouTube Analytics Pipeline with CI/CD and PowerBI: Developed an end-to-end solution to extract real-time data using YouTube API, process and store in MongoDB Atlas, analyze in Colab, automate deployment with GitHub Actions, and visualize results in PowerBI dashboards, ensuring up-to-date stakeholder insights. [Github]
- Anomaly Detection for Temperature Device using ML: Evaluated and optimized several ML algorithms including K-Means and Isolation Forest enhancing anomaly detection efficiency in temperature monitoring systems. [Github]
- Brain Tumor Detection Using CNN: Developed a Convolutional Neural Network model in TensorFlow to identify brain tumors from MRI scans with 94% accuracy. [Github]

# PROFESSIONAL EXPERIENCE

Speedoz Ltd.Dhaka, BangladeshData Scientist2018 – 2022

- Conducted product research and targeted marketing leading to a 20% increase in sales for the Keeway motorcycle within six months.
- Developed a customer recommendation system enhancing target marketing strategies and boosting conversion rates by 15%.
- Built a model that helped the company identify which products are performing better in which region.
- Prepared growth and sales chart to help business development team derive insights from sales data.
- Built dashboards of expenditure, sales, reviews, and website visitation.
- Optimized real-time fraud detection with machine learning reducing fraud incidents by 35% and enhancing overall business security.
- Executed a comprehensive analytics pipeline from data extraction to visualization improving stakeholder reporting and decision-making processes.
- Applied predictive modeling to forecast trends and anomalies informing strategic product positioning and market analysis.
- Developed and validated sophisticated algorithms for pattern recognition contributing to the company's data-driven strategy in product development and regional sales performance.