



# Arshadul Hoque

## Machine Learning Engineer

### Experience

2025 – Present

THE COBALT PARTNERS

#### Prompt Engineer & Business Analyst

- Designed and refined prompts for business process specifications, achieving **40% improvement** in accuracy.
- Streamlined workflows, reducing turnaround times by **10%** while translating business requirements into actionable technical specifications.

2023 - 2024

UNIVERSITY OF  
CHITTAGONG

#### Research Assistant

- Developed multi-label classification using BanglaBERT for social media analysis, improving F1 scores to **0.73/0.69**.
- Applied k-fold cross-validation and focal loss to address data imbalance, with research under peer review.

### Education

2016 - 2022

University of Chittagong

#### BSc. Engineering Degree in Computer Science and Engineering

**Undergraduate Thesis:** "Sentiment Analysis of COVID-19 Vaccine Tweets using BERT" – Using NLP techniques, sentiment analysis was conducted on vaccine-related topics. Despite a small dataset of 130 entries, the BERT-based model achieved 62% accuracy, highlighting its potential for insights from limited data.

### Projects

Oct 2023

Pytorch, Streamlit

#### Restaurant Idea Generator

- Developed Streamlit app using Flan-T5 for generating cuisine-specific restaurant concepts.
- This tool is ideal for restaurant owners, menu planners, and food lovers, providing a simple interface to quickly generate creative ideas.

Jun 2023

Python, Scikit-learn,  
Pandas

#### House Price Prediction

- Built linear regression model achieving 99% accuracy with feature engineering and MSE optimization.
- It utilizes a dataset from Kaggle containing property listings in Bangladesh.

### References

#### Md. Ashikul Hosen

Miaki Media Ltd / Software  
Engineer(iOS)

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#### Dr. Tanzilur Rahman

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### Expertise

Python

SQL

Machine Learning

Natural Language Processing

Statistical Data Analysis

Prompt Engineering

### Language

English

Bangla

German

### Competition

April 2024 - July 2024 | Automatic Essay Scoring

**Achieved the Top 80% (2141/2706 participants) by optimizing DeBERTa models. Achieved a score of 0.78.**

Dec 2024 - Feb 2025 | Rohlik Sales Forecasting Challenge

**Built a LightGBM model and ranking Top 56% (431/777 participants).**