Obidur Rahman

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EDUCATION

University of Chittagong Chittagong, Bangladesh
Bachelor of Science in Mathematics *Expected Dec 2026*

- **Relevant Coursework:** Complex Analysis, Numerical Analysis, Differential Equation, Vector & Tensor Analysis, Linear Programming, Linear Algebra, Calculus, Real Analysis, Geometry and Mathematical Programming

PROJECTS

Comparative Analysis of Lightweight Vision Models | *TensorFlow, Keras, Python* 2024

- Benchmarked 15 lightweight models achieving 99.56% accuracy with MobileViTV2-050 (1.1M params, 0.2 GFLOPs)
- Optimized models for edge deployment with comprehensive analysis of accuracy between models
- Conducted performance evaluation across accuracy, model size and FLOPs for agricultural applications

Predicting Undergraduate Admission Outcomes in Bangladesh | *Python, XGBoost, SHAP, Streamlit* 2024

- Developed and deployed ML model achieving 83.87% accuracy and 0.8633 ROC-AUC score for admission prediction
- Implemented advanced feature engineering and hyperparameter optimization using Optuna and ensemble methods
- Conducted SHAP analysis to identify key predictors providing actionable insights for stakeholders
- Built interactive web application using Streamlit for model deployment and real-time predictions

Environmental Determinants of Diarrheal Disease Prediction | *Python, SARIMA, Plotly, Streamlit* 2024

- Implemented time-series forecasting using SARIMA and ARIMA for environmental health applications
- Achieved best performance with Linear Regression (RMSE: 7.40, MSE: 54.82) using 0-7 day lagged features
- Designed interactive dashboard with real-time visualizations for public health insights and trend analysis

TECHNICAL SKILLS

Languages: Python, C++, JavaScript, TypeScript
Machine Learning: TensorFlow, PyTorch, scikit-learn
Tools & Deployment: Git, Streamlit, Firebase, Next.js
Specializations: Computer Vision, Predictive Modeling, Time Series Forecasting, Statistical Analysis

CERTIFICATIONS & AWARDS

First Place, Digital Innovation Fair 2018
Featured in National Newspaper

- Developed Drug Addiction Recovery System, recognized for innovative approach to social problem-solving

Software Engineering Fellowship August 2024
Headstarter AI

- Completed intensive 7-week bootcamp developing 5 full-stack web applications using Firebase, Next.js
- Led a team of 4 developers, delivering projects with tight deadlines

LEADERSHIP & COMMUNITY

Founder & Community Lead, The Code Forum 2023 – Present
100+ Members

- Built technical community focused on collaborative learning in Python, ML, and software development

Technical Content Creator 2023 – Present
1000+ Readers

- Published 13 technical articles on Hashnode covering ML, Python, and data science topics
- Created 10+ educational videos on Machine Learning, Mathematics, and Programming on YouTube