Obidur Rahman

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EDUCATION

University of Chittagong

2023-2027

BSc in Mathematics, Bangladesh

- Relevant Coursework: Advanced Calculus, Linear Algebra, Statistical Learning, Numerical Analysis
- Research Focus: Machine Learning Applications in Mathematical Modeling

TECHNICAL SKILLS

- Programming Languages: Python, C++, JavaScript, HTML, CSS
- Machine Learning: scikit-learn, Pandas, NumPy
- Tools: Git, Streamlit, Matplotlib, Plotly, Firebase

PROFESSIONAL EXPERIENCE

Software Engineering Fellow, Headstarter AI

Aug 2024

- Led design and development for five full-stack web applications as Project Manager
- Designed and styled user interfaces with Next.js, focusing on responsive design and user experience
- Integrated Firebase for secure authentication and real-time database management
- Utilized Git for version control and collaborated effectively with a team of four developers

TECHNICAL PROJECTS

Environmental Determinants of Diarrheal Disease

Live Demo — GitHub

- Developed and evaluated multiple regression models (linear regression, random forest, SVR, decision tree, gradient boost) achieved the best performance with gradient boost, optimized with 4-day lagged features (MSE: 527.27, R²: 0.2936). The analysis included exploring the impact of lagged features (0-7 days) on model performance and hyperparameter tuning for each model
- Successfully analyzed time-series data across four major divisions identifying key correlations and insights
- Designed and built an interactive dashboard with dynamic visualizations
- Technologies: Python, scikit-learn, Pandas, NumPy, Matplotlib, Plotly

IMDB Sentiment Analysis Engine

Live Demo — GitHub

- Built an NLP model for sentiment analysis on 50,000 IMDB reviews with high accuracy.
- Developed a responsive web interface with real-time analysis and an interactive visualization dashboard.
- Technologies: Python, scikit-learn, NLTK, Streamlit, NLP

LEADERSHIP & COMMUNITY IMPACT

Founder & Community Lead, The Code Forum

2023-Present

• Scaled a tech community to 100+ active members and launched a mentorship program with structured learning paths across 5 programming tracks.

Research & Development Secretary, Chittagong University Math Club

2023-Present

• Led weekly Python sessions for 100+ students and authored 20+ technical articles

AWARDS & ACHIEVEMENTS

First Place, Digital Innovation Fair

2018

- Presented an innovative Drug Addiction Recovery System, selected among 100+ projects.
- Featured in a national newspaper for an innovative and impactful approach to recovery from addiction.