Nur Uddin Ibne Huda

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Education

Bangladesh University of Engineering and Technology

B.Sc. in Computer Science and Engineering

CGPA: 3.25

Feb. 2020 - Mar. 2025

Notre Dame College

Higher Secondary School Certificate

Result: 5.00 GPA

Jul. 2017 - Jun. 2019

Experience

Software Engineer - Intern at Surround Security

Cybersecurity Research project for android Application

Dhaka (REMOTE)

Jan, 2025 - Running

Skills

Programming Language	Python, Java, C++, JavaScript, C
Frameworks & Libraries	NextJS, Flutter, Django, DjangoREST, ReactJS, VueJS, JavaFX
AI/LLM Tool	PyTorch, OpenCV, LSTM, Vision Transformer, RAG, LangChain
DataBase	Oracle, PostgreSQL, MySQL, Django ORM
Tools & Software	Git/Github, Docker, Postman, NS-3, Bison, Flex

Projects

Bangla Image Caption Generator ⌕

Pytorch • Keras • OpenCV • LSTM • Vision Transformer

2024

Developed a machine learning model for generating Bangla image captions using CNN-LSTM architecture. Creating and preprocessing custom dataset with image-caption pairs.

- Built image preprocessing pipeline using OpenCV and VGG16 for feature extraction
- Implemented attention mechanism and beam search for caption generation
- Developed custom data augmentation techniques for model training

StayNest ⌕

Next.js • Django REST • Supabase • PostgreSQL • MapTiler • Tailwind

2024

Developed a full-stack property rental platform with features including interactive map integration, multi-step property registration and real-time availability tracking. Implemented microservices for scalable booking management and price negotiations.

- Engineered role-based access control with JWT authentication and Supabase integration
- Integrated MapTiler SDK for location-based property search with interactive map visualization
- Designed dynamic pricing system with meal package customization and real-time price calculations

Football Transfer Market ⌕

Java • JavaFX • Socket Programming • Multi-threading

2021

Created a real-time football transfer market platform using multi-threaded architecture for concurrent club operations and player trading.

- Implemented concurrent socket connections for real-time player trading between clubs
- Designed thread-safe data structures for managing market state and transactions

Railway E-Ticket System ⌕

Oracle • Django • PL/SQL • Python

2022

Designed and implemented a railway ticket reservation system with database architecture for handling concurrent bookings and real-time seat management.

- Built transaction management system with automated timeout and rollback mechanisms
- Implemented complex SQL queries for route-based fare calculation and seat allocation

RAG-based Conversational AI (Thesis) ⌕

Python • Hugging Face • NLP • RAG

2024-2025

Leveraging Domain Adaptation of Retrieval-Augmented Generation (RAG) Models for Conversational AI in Customer Service. Fine-tuned model using domain-specific datasets and optimized retrieval mechanisms.

Certifications

Machine Learning Specialization

DeepLearning.AI & Stanford Online, Instructor: Andrew Ng

Certificate ⬀

Coursera

2024