MD RAZIUL HASAN NAYON

nayon8828@gmail.com || +8613071075992
https://www.linkedin.com/in/md-raziul-hasan-nayon/ || https://github.com/HasanNayon

Education

B.E in Software Engineering
Zhengzhou University | Sept 2022 – June 2026
CGPA: 3.27/4
Relevant Courses: AI, Software Engineering, Data Structures, Databases, OOP

Skills

Programming Languages: Python, Java, C, SQL, HTML
AI/ML Frameworks: TensorFlow, Keras, Scikit-learn, LangChain, LangGraph, NumPy, Pandas
Tools & Platforms: FastAPI, Streamlit, Power BI, Seaborn, GCP
Areas of Expertise: LLM, Deep Learning, Machine Learning, NLP, Computer Vision, Data Analysis, Data Visualization
Core Competencies: Data Structures & Algorithms, Software Engineering, Object-Oriented Programming
SOFT SKILLS: Leadership, Problem-Solving, Communication, Teamwork, Time Management, Critical Thinking

Experience

Deep Learning Engineer | Gait Recognition Research
Zhengzhou University | June 2024 – Present

- Designed and implemented deep learning models for human gait analysis and recognition using the **CCPG dataset** containing **1.6 million images across 200 classes**
- Developed CNN architectures for feature extraction and classification, achieving **high accuracy** in gait pattern recognition
- Implemented data pre-processing pipelines and augmentation techniques to handle large-scale image data efficiently
- Optimized model performance for real-time processing capabilities

LEADERSHIP & ENTREPRENEURSHIP

Co-Founder of Help Trust For Students
24 Aug 2024 – Present
A non-profit platform providing educational and financial support to Bangladeshi student.

- Scaled the platform to support **10,000+ beneficiaries** with total aid distribution exceeding **$400k+ USD**
- **Lead the IT Infrastructure & Fundraising Sections**: Oversaw platform development, technical maintenance, and strategic fundraising initiatives
- Designed and managed donation systems and fund allocation mechanisms
- Built a sustainable operational model ensuring continuous support delivery to students in need
- Coordinated with cross-functional teams including volunteers, technical staff, and partner organizations

Project Work

- **Real Time News Agent** **Link**
  Tech Stack: Tech Stack: Python | Streamlit | Groq AI (Llama 3.3) | NewsAPI | Scikit-learn
    - Built conversational AI chatbot that answers user queries with real-time news using LLM-based theme

extraction
- Implemented ML-based fake news detection system with 70% confidence threshold to filter unreliable sources
- Integrated NewsAPI for dynamic news fetching based on AI-extracted query themes
- Developed interactive Streamlit UI with chat history, source citations, and configurable settings
- Generated comprehensive AI responses by analyzing and synthesizing multiple verified news articles

- **Geospatial AI-Powered Road Damage Detection & Monitoring System** **Link**
  Technologies: Python, Flask, YOLOv8, OpenCV, Google Maps API, SocketIO, Pandas

  - Developed an end-to-end road infrastructure monitoring system using deep learning (YOLOv8) to detect potholes and cracks with 85%+ accuracy
  - Implemented real-time dashcam detection with automatic GPS location capture and database logging via WebSocket integration
  - Built an interactive dashboard with Google Maps API, displaying 1,000+ geotagged detections across Melbourne and Sydney with filtering, severity analysis, and trend visualization
  - Engineered image upload functionality with automatic location tagging and confidence scoring for crowdsourced data collection
  - Designed scalable architecture supporting live video streaming (15 FPS), frame-by-frame analysis, and CSV-based data export for GIS integration
- **Generate Recipe Using Food Image** **Link**
  Developed "Cooking by Sight," a deep learning-based application that generates recipes from food images. The project features a user-friendly frontend built with React and Next.js, styled using Tailwind CSS. The backend, developed in Python, employs TensorFlow for image recognition and Streamlit for deployment. Users can upload food images, and the system identifies ingredients to generate corresponding recipes. This project demonstrates expertise in full-stack development, machine learning model integration, and creating intuitive user interfaces.

Publications

- Nayon, M.R.H. et al. (2025). "Impact of Automated Software Development Using Large Language Models: Capabilities, Limitations, and Future Evolution." RA Journal of Applied Research, 11(9). https://doi.org/10.47191/rajar/v11i9.07

Awards and Certificates

- **Henan Government Scholarship – 2022**
  Awarded by the Henan Provincial Government, China.
- **Outstanding Monitor Award**
  Zhengzhou University
  Academic Year : 2022-2023
- **Foundations of Project Management**
  Issuing Organization: **Google**

Languages:

• English • Bangla(Native) • Hindi • Urdu