SHAKHAWAT HOSSAIN

AI Engineer

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ShakhawatShanin

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SUMMARY

I am an AI Engineer at HawkEyes Digital Monitoring Limited, specializing in optimizing Computer Vision, NLP, OCR, and AI models. I ensure top-notch quality and seamlessly deploy solutions on cloud platforms and applications. Passionate about leveraging cutting-edge technology to solve real-world problems, I actively learn new technologies and coding practices to push the boundaries of AI innovation. I have successfully solved over 300+ programming challenges on platforms such as Codeforces, URI, and DIU Bluesheet.

SKILLS

Languages: C, C++, Python, Java, MySQL

Data Analysis: NumPy, Pandas, Matplotlib, Seaborn

Frameworks: TensorFlow, PyTorch, Scikit-learn, Keras, OpenCV, Hugging Face

Tools: Git, Jupyter, VS Code, LaTeX, Roboflow, Colab, MS PowerPoint, Word

Web Tools: FastAPI, Flask, RestAPI, ReactJS, Tailwind

EDUCATION

01/2020 – 12/2023 **B.Sc. in Computer Science and Engineering** — **Daffodil International University (DIU)**
CGPA: 3.60/4.00
Major: Artificial Intelligence
Thesis: Graph-Based Breast Tumor Classification Through Ultrasound Imaging Using Radiomics Features.

EXPERIENCE

02/2024 – Present **AI Engineer** — **HawkEyes Digital Monitoring Limited**
Prepared datasets, trained and fine-tuned models, and optimized accuracy for real-world AI applications.

05/2024 – Present **Research Assistant (Remote)** — **University of Queensland**
Developed a hybrid graph-based brain glioma grading system using 3D MRI datasets.

01/2024 – 02/2024 **Junior Front-End Developer** — **M4yours Dev**
Designed a responsive news portal template for publishers and bloggers.

01/2023 – 12/2023 **Research Lab Member** — **HIRL Lab (DIU)**
Worked on medical image disease detection, sentiment analysis, and integrated computer vision with advanced ML algorithms.

PROJECTS

BAT Bangladesh ***YOLO Segmentation, Detection, Warp Perspective, Sequence Generation, LLAMA2, Langchain***

- **BAT AI-Based Cigarette Brand Detection and Competitor Analysis System:**
  Built an object detection system using YOLO for cigarette brand identification, sequence validation, and competitor analysis.
- **Chatbot Development:**
  Developed an NLP chatbot for dynamic conversations across multiple platforms, handling queries and providing real-time customer support with personalized responses.

Unilever Bangladesh — ***Python, NLTK, FastAPI, Pytesseract, Asynchronous Programming***

- **OCR Based Billing System for Laver Bazar:**
  Developed an OCR application to capture invoice images and extract item names, quantities, and prices. Automated data digitization and storage, enhancing inventory and financial management by reducing errors.
- **Voice Recognition System for Word Detection and Counting:**
  Developed a voice recognition application that processes audio input and identifies the frequency of specific words or phrases.

Gazipur Police — ***ML, MTCNN, Keras FaceNet, OpenCV, NumPy***

- **Face Recognition System for Gazipur Metropolitan Police (GMP):**
  Designed a real-time facial recognition system that enables secure access control, user verification, and efficient recognition history management.

ACHIVEMENT

2025 — ***Best Performing Team (AI Team)*** — **HawkEyes Digital Monitoring Limited**

PUBLICATIONS

- Md. Aiyub Ali, **Md. Shakhawat Hossain**, Md.Kawsar Hossain, Subhadra Soumi Sikder, Sharun Akter Khushbu, Mirajul Islam, "AMDNet23: Hybrid CNN-LSTM Deep Learning Approach with Enhanced Preprocessing for Age-Related Macular Degeneration (AMD) Detection", Intelligent Systems with Applications journal, Elsevier.
  https://doi.org/10.1016/j.iswa.2024.200334
- Md. Aiyub Ali, **Md Shakhawat Hossain**, Taslima Ferdaus Shuva, Muhammad Ali Abdullah Almoyad, Nabil Anan Orka, Md. Tanvir Rahman, Risala Tasin Khan, M. Shamim Kaiser, and Mohammad Ali Moni. "RGNN3D: A Hybrid Radiomic Graph Neural Network for 3D MRI Glioma Grading" Knowledge-Based Systems. [In Review]

REFERENCES

- **Dr. Mohammad Ali Moni, PhD (Cambridge):** Professor and Head, AI and Digital Health Technology, University of Queensland, Australia
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