MEHEDI HASAN NIROB

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LinkedIn · Portfolio · GitHub

PROFESSIONAL SUMMARY

Computer Science graduate and Google-certified IT Support professional with a diverse technical background in Python development, backend engineering, AI/ML, networking, and IT support. Experienced in remote project-based engineering, developing and evaluating machine learning models, data processing, and building Python-based applications using Flask and FastAPI. Skilled in technical troubleshooting, hardware and software support, database fundamentals, and networking. A quick learner with strong analytical, problem-solving, and communication skills, adaptable to software development, IT operations, networking, and AI/ML environments.

TECHNICAL SKILLS

IT Support & Systems:	Windows, Linux, macOS Installation & Troubleshooting, Desktop/Laptop Hardware, Peripheral Setup, MS Office, User Technical Support, Basic System Security, Typing Speed 50+ WPM
Networking:	LAN/WAN, TCP/IP, DNS, DHCP, Networking Fundamentals
Programming:	Python, C++, C, HTML, CSS, SQL, FastAPI, Flask
AI & Data Science:	NumPy, Pandas, Matplotlib, Scikit-learn, OpenCV, YOLO, TensorFlow, CNN, NLP, Machine Learning, Deep Learning, LSTM, GRU, VGG, ResNet, MobileNet, Linear/Logistic Regression, SVM, Random Forest, Decision Tree
Professional Skills:	Technical Troubleshooting, Problem-Solving, Team Collaboration, Fast Learner

PROFESSIONAL EXPERIENCE

Junior AI Engineer June 2024 – May 2025
EraVend GmbH & Co. KG. Remote

- Collaborated with Mechanical and Embedded engineering teams on project-based AI research and development.
- Designed, trained, and fine-tuned custom deep learning models tailored to specific project requirements.
- Performed data collection, preprocessing, dataset annotation, system testing, and performance validation.
- Contributed to successful project deliveries by integrating trained machine learning components into embedded systems.

Coders – AI Training August 2024 – December 2024
Scale AI / Outlier Remote

- Evaluated, debugged, and refined AI-generated code snippets across various programming languages to improve accuracy and efficiency.
- Authored high-quality reference solutions and detailed technical rationale to train large language models (LLMs).
- Ensured code quality, logical consistency, and adherence to functional programming standards.

CP Problem Annotator July 2024 – September 2024
Acade.Studio Remote

- Analyzed, annotated, and verified competitive programming problems, test cases, and algorithmic solution paths.
- Conducted rigorous logical checks and optimization reviews to ensure problem set validity and computational correctness.

EDUCATION

Bachelor of Science in Computer Science and Engineering January 2020 – February 2024
Dhaka International University, Dhaka, Bangladesh
Cumulative GPA (CGPA): **3.71 / 4.00**

SELECTED PROJECTS

Deep Learning-Based Violence Detection (Thesis Project) [GitHub]

- Built a custom video dataset consisting of 1,000 processed video clips to train deep learning detection algorithms.
- Developed an automated end-to-end Flask web application that analyzes real-time feeds to detect violent incidents.
- Integrated an automated alert system delivering email notifications containing timestamped frames and location details, reducing dependence on manual surveillance monitoring.

Object Detection Using Pretrained YOLOv8 [GitHub]

- Implemented real-time computer vision object detection utilizing state-of-the-art pretrained YOLOv8 architectures.

Age and Gender Detection Using OpenCV [GitHub]

- Developed a facial analysis system capable of accurately predicting age range and gender from image feeds.

Dynamic Chatbot Using NLTK [GitHub]

- Designed a text-based conversational agent utilizing natural language processing techniques for dynamic query resolution.

Hand Digit Classification using Neural Network [GitHub]

- Trained a deep neural network model to classify handwritten digits with high accuracy.

Additional Projects:
HR Analytics · Car Insurance Claim Prediction · Heart Disease Prediction · Diabetes Prediction · Loan Status Prediction · Spam Mail Prediction · Iris Classification · Python DSA, OOP & ML Repository

CERTIFICATIONS

- **Technical Support Fundamentals** – Google
- **Introduction to TensorFlow for AI, ML and Deep Learning** – DeepLearning.AI / Coursera
- **Convolutional Neural Networks in TensorFlow** – DeepLearning.AI / Coursera
- **Natural Language Processing in TensorFlow** – DeepLearning.AI / Coursera
- **Supervised Machine Learning: Regression and Classification** – DeepLearning.AI / Coursera
- **Problem Solving** – HackerRank
- **Python Certificate** – HackerRank

PUBLICATION

- M. M. Haque, et al., including **M. H. Nirob**, "A Case Study of Human Segmentation in Multispectral Imaging," *IEEE International Conference on Computer and Information Technology (ICCIA)*, 2024. · [Google Scholar]

CODING & ONLINE PROFILES

GitHub · Monkeytype · Codeforces · HackerRank · LeetCode · Kaggle

LANGUAGES

Bangla:*Native* · **English:** Fluent · **Urdu/Hindi:** Conversational