D.M. RAFIUN BIN MASUD

Machine Learning Engineer with hands-on experience in designing, building, and deploying ML/AI solutions across computer vision, recommendation systems, and NLP. Skilled in MLOps practices, scalable deployment, and cross-functional collaboration. Proven track record in applied research (Best Paper Award, 2022) and industry-grade ML applications. Adept at mentoring peers, communicating with clients, and driving AI solutions from prototype to production.

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EDUCATIONAL QUALIFICATION

B.Sc in Computer Science & Engineering (CSE)- 2024
East West University (EWU)
- CGPA 3.05/4.00

WORK EXPERIENCES

AI Engineer
Betopia | Dhaka, Bangladesh
Mar 2025 – current

- Leading a team of junior AI developers in designing and deploying ML-powered solutions.
- Mentoring team members on machine learning best practices, code reviews, and project delivery.
- Managed the end-to-end lifecycle of ML applications, from model training to containerized deployment with Docker.
- Coordinated with cross-functional stakeholders to align AI solutions with product goals.
- Oversaw industrial ML projects including:
    - Dating App Matching & Filtering Algorithms.
    - Quran Pronunciation Evaluation System (Audio Analysis).
    - Food Calorie Estimation via Image Processing.

CORE COMPETENCIES

SOFTWARE DEVELOPMENT • DATA ANALYSIS • MACHINE LEARNING • AUTOMATION TESTING • SYSTEM OPTIMIZATION • DATA PREPROCESSING • PREDICTIVE MODELING • MODEL TRAINING • MODEL EVALUATION • DEEP LEARNING • DATA VISUALIZATION • REGRESSION ANALYSIS • FEATURE EXTRACTION • QA AUTOMATION • PERFORMANCE MONITORING • ALGORITHM DEVELOPMENT • STATISTICAL ANALYSIS • TESTING FRAMEWORKS • DATA MINING • PROBLEM SOLVING • PROCESS AUTOMATION

TECHNICAL SKILLS

Programming Languages: C, C++,Python, JavaScript • **Database:** MySQL, Oracle SQL • **Software & Tools:** VS Code, Github, PyCharm, Netbeans • **AI & ML Libraries:** Scikit-learn, Pandas, NumPy, Matplotlib, OpenCV, TensorFlow, Keras • **Web & API Development:** FastAPI, HTML, CSS, JavaScript, React, PHP • **Backend & DevOps:** Docker, VPS Deployment, Postman, GitHub

LANGUAGES

Bengali (Native | **English** (Fluent)

PROJECT WORK

BALL SHUNDARI APPLE PLUM OBJECT DETECTION
TECHNOLOGIES: PYTHON, STREAMLIT, TENSORFLOW, KERAS, OPENCV, GITHUB

- COLLECTED AND PROCESSED A DATASET OF 701 IMAGES OF BALL SHUNDARI APPLE PLUMS.
- APPLIED ADVANCED IMAGE PROCESSING TECHNIQUES, INCLUDING RESIZING, NORMALIZATION, AND AUGMENTATION.

MEDICINE RECOMMENDATION SYSTEM AND MEDICAL CHATBOT

Technologies used: Python, Streamlit, LLM Model

- Integrated Bengali language support will make medicine information accessible to local users.
- Designed and trained a chatbot using large language models to offer accurate medical advice.

Movie Recommendation System Using Machine Learning

Technologies: Python, Machine Learning Models

- Preprocessed datasets to enhance accuracy in recommendations.
- Implemented machine learning algorithms for content-based and collaborative filtering.
- Evaluated model performance and fine-tuned parameters to improve user satisfaction.

RESEARCH WORK

DEEP LEARNING AND NON-CONTRAST CT FOR WIDESPREAD PANCREATIC CANCER DETECTION - 2022

- **Achieved BEST PAPER CERTIFICATE AWARD BY THE INTERNATIONAL CONFERENCE ON INNOVATIONS IN DATA ANALYTICS, 2022**
- INVESTIGATED APPLYING DEEP LEARNING MODELS TO NON-CONTRAST CT SCANS FOR EARLY DETECTION OF PANCREATIC CANCER.
- DESIGNED AND TRAINED CONVOLUTIONAL NEURAL NETWORKS (CNNS) TO ACCURATELY IDENTIFY CANCEROUS TISSUES.
- PREPROCESSED LARGE DATASETS OF CT IMAGES TO ENHANCE MODEL PERFORMANCE AND RELIABILITY.
- EVALUATED MODEL OUTCOMES, ACHIEVING IMPROVED PRECISION IN IDENTIFYING EARLY-STAGE PANCREATIC CANCER.

Academic Project on A MACHINE LEARNING APPROACH TO EVALUATE THE CLASSIFICATION OF SLOW GROWTH STAGES IN THE BALL SHUNDARI APPLE PLUM IMAGE DATASET - 2022

- DEVELOPED A MACHINE LEARNING MODEL TO CLASSIFY THE GROWTH STAGES OF THE BALL SHUNDARI APPLE PLUM BASED ON IMAGE DATASETS.
- APPLIED FEATURE EXTRACTION TECHNIQUES TO HIGHLIGHT KEY CHARACTERISTICS IN IMAGES.
- TRAINED AND TESTED VARIOUS CLASSIFICATION ALGORITHMS, OPTIMIZING FOR ACCURACY AND EFFICIENCY.
- CONDUCTED STATISTICAL ANALYSIS TO VALIDATE MODEL PREDICTIONS AGAINST GROUND TRUTH DATA.

A DEEP LEARNING APPROACH TO CLASSIFY SLOW GROWTH STAGES IN THE BALL SHUNDARI APPLE PLUM - 2021

- IMPLEMENTED A DEEP LEARNING FRAMEWORK TO ANALYZE AND CLASSIFY SLOW GROWTH STAGES IN APPLE PLUM SAMPLES.
- UTILIZED NEURAL NETWORKS TO MODEL INTRICATE GROWTH PATTERNS AND DETECT STAGE-SPECIFIC FEATURES.

Course & certifications

Accenture North America - Data Analytics and Visualization Job Simulation - 2024 | Forage

EXTRACURRICULAR ACTIVITIES

Associate Video Editor | EWU Robotics Club

- Collaborated with team members to create visually appealing content that showcased robotics projects and achievements.

Event Coordinator | IEEE Computer Society Student Branch

- Organized and managed events, workshops, and competitions.
- Coordinated with sponsors, guest speakers, and participants.

REFERENCES

Dr. Md Sawkat Ali
Associate Professor
Department of Computer Science & Engineering
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