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📍 336, North Shahjahanpur, Khilgaon, Dhaka

EDUCATION

B.Sc. in Computer Science and Engineering
Khulna University of Engineering & Technology (KUET)
Jan 2019 - Feb 2024

PROJECTS & THESIS

STUDY ON AGRICULTURAL LAND REDUCTION IN BANGLADESH USING SATELLITE IMAGES

Thesis

- Created a novel dataset which consist of 500 image pair of two different years and it's change detection ground truth.
- Modified a python library for change detection named Open-CD and trained various models with the prepared dataset and compared the results.
- Created a novel deep learning architecture for change detection which outperforms other models based on accuracy, IoU and other metrics
- **AdaBoost, SVM algorithm, Remote sensing and GIS software** were used for creation of dataset.
- **Published the research on IEEE Xplore.**

INTENT BASED PRODUCT SEARCH

Python Application

- Developed a semantic product search engine that understands and responds to user intent using a fine-tuned lightweight language model.
- Leveraged **LangChain**, **Ollama**, and **PGVector** to enhance query understanding and **Redis** for caching
- Designed and orchestrated a data processing and fine-tuning pipeline using **Apache Airflow** for scalable, automated model training.

CERTIFICATIONS

- **DEEP LEARNING SPECIALIZATION**
DeepLearning.AI
Coursera.
- **Machine Learning A-Z: AI, Python & R**
Udemy

EXPERIENCE

RELISOURCE TECHNOLOGIES LTD JUNE 2024 -
Junior Machine Learning Engineer

- **AI Chatbot:** Customer service AI Chatbot using **RAG, Langchain, FastAPI and React, Azure OpenAI**, which provide message stream and source, with 4 sec latencies. Deployed to azure cloud service.
- **Drug Discovery Pipeline:** ML based drug discovery pipeline using **AlphaFold, AutoDock Vena, DeepChem** and **Graph Neural Network**.
- **PDF Parsing:** Created a PDF parsing pipeline, which will extract necessary information from pdf using **Data Embedding** and **LLM** and store it on excel.
- Research related to Clinical Trial, Trial Finder, Patient data analysis.
- Data Cleaning, Preprocessing Analysis and Evaluation.
- Prompt and Feature Engineering, **deploying AI applications** on Azure Cloud Service.

SKILLS

- **Language:** Python, R, Java, C/C++, JavaScript
- **Framework:** TensorFlow, PyTorch, Scikit-learn, LangChain, React, FastAPI, Flutter, Transformers.
- **Database:** MySQL, Postgresql, Redis.
- **Others:** Git and GitHub, Docker, Nginx, Ollama.
- **Relevant Coursework:** Machine Learning, Linear Algebra, Statistics, Data Mining, AI, DBMS, NLP, Calculus, Algorithms, Data Structure.
- **Soft Skill:** Team Player, Hardworking, Responsible and Punctual.

ACHIEVEMENTS

- **Intra KUET Programming Contest:** 7th
- **CodeForces**([wahidmshafin](https://www.codeforces.com/profile/wahidmshafin)): Max Rating: 1493 and 600+ solves
- **CodeChef**([WahidmShafin](https://www.codechef.com/users/wahidmshafin)): Max Rating: 1864
- **LeetCode**([WahidmShafin](https://leetcode.com/u/wahidmshafin/)): 100+ solves.