Waqar Ahmed

Machine Learning engineer

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LINKS

Github: https://github.com/IM07813

LinkedIn: https://www.linkedin.com/in/waqar-ahmeda31310258

kaggle: https://www.kaggle.com/waqar07813

Stackoverflow: https://stackoverflow.com/users/20765829/waqar

Upwork: https://www.upwork.com/freelancers/~01f32343e8f9552c54

Technical Skills:

Machine Learning Algorithms & Libraries
Statistical Analysis (using R)
Natural Language Processing (NLP)
Computer Vision
Data Preprocessing
Cloud Computing (AWS, google cloud platform)
Neural Networks & Deep Learning
Version Control Systems (Git)
Experience in parallel computing
Working with Open AI and hugging face APIs
SQL experience
Data Visualization libraries (seaborn and matplotlib)
Microsoft Office Suite (Excel, PowerPoint etc) and
libre office proficiency
Good understanding of advanced Data Structures & Algorithms
Experience in dynamic programming
Software Development & Integration
Hardware Proficiency(micro-controllers) & IoT Integration
(worked with arduino and esp 32, esp 8266,
esp-01 arduino uno board/nano)

Programming LANGUAGES(high/low level)

Python, R, C++, C, julia, assembly(linux x86).

FRAMEWORKS/LIBRARIES/TOOLS/SERVICES

Pytorch, tensorflow+keras, jax, scikit- learn, Caffe, tensorboard,

amazon sagemaker, data analysis libraries like

pandas, seaborn, matplot etc.

I excel in developing and implementing algorithms across various paradigms. My expertise encompasses a broad spectrum of data structures and algorithms, graph theory, statistics, and dynamic programming. I am fluent in multiple machine learning frameworks, including deep learning, reinforcement learning, natural language processing, unsupervised machine learning, and computer vision. My passion for AI drives me to contribute actively to the community. Worked on rest and graphqL APIs concerning Large language models and optimizing Pre-trained large models for diverse applications. My technical expertise and commitment to pushing the boundaries of AI and adaptive thinking can make me a strong asset once given the opportunity.

Projects:

project in progress:

home automation voice assistant.

Following projects I have completed in the past for clients:

Detecting ads on live TV using deep learning

Detail: my most recent project where using several deep learning architecture along with algorithm to create a model that can not only detect when commercial starts but should detect which category the commmercial belongs to and output that category for every new Ad it sees on live TV.

Predicting odds of sports games using unsupervised learning:

Details: Using density-based algorithm (Dbscan) to find the relative relative average prediction with respect to other book keepers so the system was designed to spot an error if it varies more than a threshold value.

ALL the below project source code can be found on my Github:

MCTS-UCB-Transformer-Ensemble

Detail: A chess engine model to play with you in real time using terminal interface a encoder-only transformer, UCB and MCTS in an ensemble.

Sentiment analysis with Bert:

Detail: Used LLM Google bert and fine tuned it for sentiment analysis of people comments and responses.

Essay evaluation:

Detail: Fine-tuned bert model along with grammar and spelling check to rate an essay with ielts band score.

Chat-bot to answer physics related question:

Details: Fine-tuned Llama 2.70b on my own mini dataset to answer physics questions.

Transformer models for generative AI:

Details: To predict or generate sequence of a language using a decoder-only architecture

Implementing VIT- VQ – GAN for image generation

Details: Using Visual transformer along side vq-gan for image

generation and matching the results with style gan and

diffusion models

Actively Working:

Space optimization with probabilistic approach.

Fine-tuning Llama 3.1 8B on Pakistan laws

Actively Learning:

Baysian optimization

Preparing for amazon machine learning specialization exam

Asynchronous halving (HPO) for Image data

Asynchronous advantage actor-critic a3c

Projects:

Chess engine:

Details: Using CNN along with minimax to evaluate postions in chess

Scoliosis Detector:

Details: AI-powered application for detecting scoliosis

Utilized TensorFlow and customtkinter to create a user-friendly interface for image analysis and result visualization

EDUCATION:

BS physics Comsats university

(2018-2022)

Languages:

English (fluent)

German: Currently learning

Certifications and professional Development:

Preparing for Amazon Machine Learning Specialization Exam

Open Source Contributions:

Actively contributing to open-source projects on GitHub, focusing on improving AI models and algorithms.