

MOOSA QAISAR

Aspiring AI & ML Engineer

RELEVANT EXPERIENCE

- Developed cutting-edge Natural Language Processing(NLP) systems, focusing on optimizing Retrieval-Augmented Generation (RAG) to improve large-scale information retrieval and intent classification.
- Developed a hybrid retrieval strategy combining sparse (BM25) and dense (FAISS) methods, followed by a cross-encoder reranking stage to significantly boost context relevance and accuracy.
- Applied complex similarity metrics (e.g., cosine similarity, Euclidean distance) and vector space models for efficient data processing in resource-constrained environments

PAST PROJECTS

Real-Time CV & Freelance Projects

- Developed and fine-tuned multiple real-time computer vision systems, including a drowsiness detector, an automated attendance system, and a custom object detector (Shemagh)
- Demonstrated proficiency in data collection, annotation, model training (YOLOv8), and deployment for real-time inference.

Multi-Document Q&A Chatbot

- Built a versatile RAG system capable of ingesting and processing multiple PDF documents simultaneously to create a unified knowledge base for domain-specific querying
- Utilized llama-cpp-python to deploy a quantized LLM locally, ensuring efficient and private operation in resource-constrained environments.

AES Hardware Accelerator on FPGA (FYP)

- Designed and implemented a high-throughput, pipelined AES encryption/decryption core on an Artix-7 FPGA



AI/ML enthusiast with an engineering mindset, building smart, end-to-end solutions. Passionate about RAG, agents, LLMs & computer vision turning advanced models into real-world impact.

CONTACT

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EDUCATION

UET, Taxila
Bachelor of Science in Computer Engineering

SKILLS



CNN's



LLM's



AI/ML
Applications



Deep Learning



Computer Vision



RAG

COVER LETTER BY

Moosa Qaisar

Aspiring AI/ML Engineer

TO WHOM IT MAY CONCERN

I am writing to express my enthusiasm for the AI/ML Engineer at your organization as advertised. My passion lies in the complete lifecycle of AI development, from architecting complex systems and training models to integrating them into scalable business workflows.

Through a series of intensive, hands-on projects, I have cultivated a deep expertise in building robust AI solutions. For instance, I recently engineered an advanced Retrieval-Augmented Generation (RAG) system to query a large and unstructured news dataset. This project required me to develop a sophisticated hybrid retrieval pipeline with a cross-encoder reranking stage, a process that significantly improved the accuracy and reliability of the final output.

My experience is not limited to NLP. I have also developed computer vision systems particularly freelance projects for real-time object detection using frameworks like YOLO and OpenCV, focusing on the trade-offs between speed and accuracy.

I am driven by the challenge of solving complex problems and am adept at quickly learning and applying new technologies to achieve project goals. I am confident that my practical skills in building, optimizing, and deploying AI systems and agents that just don't think, but can see across different domains would make me a valuable asset to your organization.

I am very interested in the opportunity to further discuss how my skills and experiences can contribute to the success of your team at AnteMatter. I have attached my resume and would be grateful for the opportunity to interview at your convenience.

Thank you for your time and consideration. I look forward to hearing from you

Moosa Qaisar