

Athar Parvez

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[LinkedIn](#) — [GitHub](#) — [Portfolio](#)

INTRODUCTION AI/ML Engineer & Research Assistant with 4+ years of experience deploying ML/LLM solutions to production, including RAG chatbots and fine-tuned models.
Research Interests: Artificial Intelligence, Machine Learning, Deep Learning, Large Language Model(LLM), Human-Computer Interaction (HCI)

EDUCATION

- **KING FAHD UNIVERSITY OF PETROLEUM AND MINERALS (KFUPM)**
(#67 QS Rank World Wide 2025), Dhahran, KSA
M.S. in Computer Science, Jan 2024 – Present GPA: 3.4/4
- **MAULANA AZAD NATIONAL URDU UNIVERSITY(MANUU)**
Hyderabad, India
B.S. in Computer Science, Aug 2016 – May 2020 GPA: 3.5/4

EXPERIENCE

- **Research Assistant** **King Fahd University of Petroleum and Minerals(KFUPM)**
Jan 2025 – Present Dhahran, KSA
Designed and executed ML experiments, built robust data pipelines for collection, preprocessing, and analysis. Analyzed large-scale datasets using PySpark, Pandas/NumPy, modeled with Scikit-learn, PyTorch, TensorFlow. Authored technical documentation and presentations, mentored undergraduates on research tasks and best practices.
- **Teaching Assistant (SWE-363)** **King Fahd University of Petroleum and Minerals(KFUPM)**
Aug 2025 – Dec 2025 Dhahran, KSA
Supported three sections (~90 students), led weekly labs and office hours. Managed GitHub Classrooms, Blackboard quizzes, and grading via Gradescope. Coached students on debugging, code structure, and software engineering best practices.
- **Machine Learning Intern** **SkillCraft Technology(SCT)**
Sep 2025 – Sep 2025 Mumbai, India
Collected, cleaned, and structured datasets, established baselines and ran hyperparameter tuning. Evaluated models using appropriate metrics; documented findings and next steps.
- **Machine Learning Intern** **Elevvo Pathways(EP)**
Jul 2025 – Aug 2025 Cairo, Egypt
Applied ML techniques to real-world tasks with mentor feedback and iterative improvements. Delivered working prototypes and concise reports highlighting impact and limitations.
- **Teaching Assistant** **King Fahd University of Petroleum and Minerals(KFUPM)**
Jan 2024 – Jan 2025 Dhahran, KSA
Assisted in Python courses (~60 students/semester), led labs and problem-solving sessions. Designed, administered, and graded lab tests and programming assignments.
- **AI/ML Engineer (3 years)** **Tata Consultancy Services(TCS)**
Apr 2021 – Jan 2024 Gurugram, India
Built and deployed ML/DL models for financial use cases (classification, prediction, anomaly detection). Fine-tuned pre-trained models/LLMs (LoRA, QLoRA, transfer learning) on domain data. Delivered end-to-end pipelines: preprocessing, feature engineering, training, and deployment.

PROJECTS

- **iArabUI: Arabic iOS UI Dataset** ([GitHub Link](#)): Building a multimodal Arabic/RTL iOS UI dataset (target 5k+ apps / 500k screenshots) and implemented LLM-based auto-labeling, benchmarking GPT-4, Ferret-UI, and LLaMA against expert annotations to advance accessibility and HCI.
- **Churn Prediction for Fintech Retention Strategies** ([Confidential](#)): Developed a churn model for Drahim (Saudi based fintech company) to identify at-risk customers and support retention strategies.
- **Purchase Order Item Categorization** ([GitHub Link](#)): Processed multilingual purchase order text. Built an embeddings+clustering pipeline to improve categorization and spend analysis.
- **Duplicate Question Detection on Quora Dataset** ([GitHub Link](#)): Built an NLP pipeline on the Quora Question Pairs dataset to detect duplicate questions using preprocessing, feature engineering (fuzzy/token/length/semantic), and scikit-learn classifiers. Deployed an interactive Streamlit app on Heroku.
- **YouTube RAG Chatbot** ([GitHub Link](#)): Extracted transcripts, created embeddings (FAISS/Chroma), and generated answers via OpenAI/HF LLMs.
- **TCS BaNCS: AI-Driven Predictive Analytics** ([Project Link](#)): Fine-tuned ML/DL models and LLMs; integrated SQL pipelines; deployed microservices (Docker, Kubernetes, AWS).

PUBLICATIONS

- **Generalizable Diabetes Risk Stratification via Hybrid Machine Learning Models** (submitted to *Journal of Diabetes and Its Complications*, Q1; confidential). First author; developed hybrid ML models; led experiment design, clinical data preprocessing, and generalizability evaluation.
- **Usability Requirements Catalog for Modeling Dynamic User Interactions in Mobile Applications**(expert validation is going on). Graph-based catalog for dynamic mobile interactions (touch, gestures); maps factors (Efficiency, Learnability, Errors) to design/evaluation; expert-validated.

PROFESSIONAL SKILLS

- **Machine Learning & Deep Learning:** Python, Scikit-Learn, TensorFlow, PyTorch, Keras, OpenCV, Pandas, NumPy, NLTK, spaCy, GANs, Transformers, Feature Engineering, Hyperparameter Tuning (Optuna), Model Evaluation (F1-score, ROC-AUC, Accuracy), MLOps.
- **Generative AI:** LangChain, LangGraph, OpenAI, Gemini, HuggingFace, RAG, LLMs, Fine-tuning (LoRA/QLoRA, quantization), Transfer Learning, Prompt Engineering.
- **Automation & Orchestration:** n8n, Zapier, MLflow, LangFlow.
- **Cloud & Databases:** AWS, MongoDB, MySQL, Oracle.
- **Development & Version Control:** Git, Docker.
- **Web Development:** HTML, CSS, FastAPI, Streamlit, Flask (Postman, Thunder Client, Insomnia).
- **Visualization & Tools:** Matplotlib, Seaborn, PySpark, Tableau, Power BI, Excel, PowerPoint, Word.

AWARDS & DISTINCTIONS

- INSPIRE Science Award, Central Government of India 2012
- Science Scholarship for Innovative Projects, State Government of UP, India 2013
- KFUPM Graduate Scholarship (*highly competitive*) 2024
- 1st prize in technical presentation, Annual Technical Fest, CS&IT, MANUU 2018

PROFESSIONAL ACTIVITIES

- Affiliated Board Member, IEEE KFUPM Student Branch 2025
- Primary Coordinator, Voluntary Work Unit at KFUPM 2025

CERTIFICATIONS

- **Duolingo English Test** — Certified Proficiency (Sep 2024) ([Duolingo](#))
- **Python Basics** — University of Michigan (Jan 2024), Credential ID: CZ8HXFHOXK8N
- **LangChain for LLM Application Dev** — DeepLearning.AI (Aug 2025)
- **Finetuning Large Language Models** — DeepLearning.AI (Feb 2025)
- **AI Agents in LangGraph** — DeepLearning.AI (Apr 2025)
- **n8n Course: No Code AI Agent Builder** — Simplilearn (Aug 2025)

REFERENCES

Dr Omar Jamal Hammad

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Dr Adel Fadhil Ahmed Noor

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Dr Jameel Ahmed

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