

Shahzaib Khan

Rawalpindi, Punjab, Pakistan

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PROFESSIONAL SUMMARY

AI/ML Engineer specializing in deep learning, computer vision, and generative AI with hands-on experience developing production-ready models. Proven expertise in transformer architectures, RAG systems, and LLM applications using PyTorch, TensorFlow, and LangChain.

TECHNICAL SKILLS

Machine Learning: Deep Learning, Computer Vision, NLP, Generative AI, RAG Systems, Model Deployment, Transfer Learning, Neural Networks

Frameworks & Tools: PyTorch, TensorFlow, Keras, Scikit-learn, Hugging Face, LangChain, FAISS, OpenCV, Streamlit, Git/GitHub

Architectures: Vision Transformers, Swin Transformer, ConvNeXt, ResNet, Inception, YOLO, Llama, Attention Mechanisms

Programming & Data: Python, SQL, R, NumPy, Pandas, Matplotlib, Feature Engineering, Model Evaluation, Data Preprocessing

EXPERIENCE

AI Developer Intern

Oct 2024 – Dec 2024

Revotic AI

Rawalpindi, Pakistan

- Developed RAG-based chatbot using LangChain, Llama 3-8B, and FAISS achieving zero hallucinations through optimized retrieval pipeline and semantic search with 90%+ accuracy
- Engineered production NLP pipeline with Hugging Face embeddings and Groq API reducing response latency by 60% while handling 100+ concurrent sessions on cloud infrastructure
- Built scalable Streamlit UI supporting multi-document upload and real-time natural language querying with sub-2-second response time

Data Science Intern

Aug 2024 – Oct 2024

ITSOLER Pvt.Ltd

Rawalpindi, Pakistan

- Developed Stock Price Prediction models using machine learning and deep learning techniques, performing time-series preprocessing, feature engineering, and model evaluation to achieve stable predictive performance
- Built a Scotland Birth Prediction system leveraging historical demographic data, applying regression and forecasting methods for trend analysis and future estimation
- Implemented and compared multiple ML models with optimized training pipelines, including data normalization, hyperparameter tuning, and performance benchmarking, improving generalization and reducing overfitting

PROJECTS

Deepfake Video Detection System | *PyTorch, Vision Transformers, OpenCV*

Jan 2024 – Present

- Architected end-to-end detection system combining ViT, ConvNeXt, and Swin Transformer with temporal optical flow features achieving 92% accuracy and 85% reduction in false positives
- Implemented custom attention mechanisms and Fourier-based feature extraction processing 10,000+ video frames with robust preprocessing pipeline using MTCNN for face detection

Bookverse AI Recommendation System | *Python, Collaborative Filtering, Content-Based*

Aug 2024

- Built hybrid recommendation engine combining collaborative and content-based filtering achieving 87% recommendation precision for 5000+ book catalog
- Implemented matrix factorization and cosine similarity algorithms with optimized data preprocessing pipeline

Computer Vision Classification Models | *TensorFlow, CNNs, Transfer Learning*

Jun 2024

- Trained ensemble CNNs using ResNet50, InceptionV3, and EfficientNet achieving 94% top-1 accuracy with transfer learning reducing training time by 70%

EDUCATION

Bachelor of Science in Computer Science

Expected 2026

Pakistan Institute of Engineering And Applied Sciences(PIEAS)

Rawalpindi, Pakistan

- Relevant Coursework: Deep Learning, Machine Learning, Computer Vision, NLP, Neural Networks, Data Structures, Algorithms

CERTIFICATIONS

AI Developer Internship – Revotic AI | Data Science Internship – ITSOLER Pvt.Ltd