# **Aroosh Ahmad**

# AI/ML Engineer | LLM & NLP Specialist | Production-Ready Systems

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# **Summary**

Al Engineer with 3+ years of experience delivering production-ready systems in NLP, computer vision, and LLM applications. Started as a Full-Stack Engineer before transitioning into Al/ML, combining backend engineering with advanced ML expertise. Proven impact: deployed OCR engines with ~98% accuracy, YOLOv5 media analysis systems cutting manual effort by 60%, and GPT-powered assistants. Skilled at building scalable ML pipelines, APIs, and Dockerized deployments.

### **Core Skills**

**Al/ML:** PyTorch, Hugging Face, LangChain, RAG, FAISS, OpenCV, OCR, YOLOv5, Transformers, NLP, CV **Backend & APIs:** FastAPI, Django REST, React.js, Node.js, .NET Core/MVC **Infra & Tools:** Docker, Azure ML, GCP Vertex AI, Git, CI/CD

## Work Experience

## Center of Language Engineering, Lahore — Al Research Officer (Nov 2023 – Feb 2025)

- Led CNN-LSTM OCR engine for Urdu/Arabic/Farsi achieving ~98% accuracy, reducing CER from 3.4% to 2.3%.
- Developed YOLOv8-based live news ticker detection (~98% accuracy) for media pipelines.
- Refactored monolithic Django backend into modular API-first system; co-authored OCR research methodology.

### Nodlays, Lahore — Al Engineer (Feb 2023 - Jan 2024)

- Engineered YOLOv7 pipeline for semiconductor DataMatrix recovery with Azure ML, automating QA and reducing manual review by 60%.
- Built GPT-3 powered fitness assistant with Django REST, enabling personalized real-time insights.
- Developed CNN/RCNN-based CAPTCHA solver and prototyped .NET Core pose estimation system.

# Highbit Games, Lahore — Software Engineer (Jul 2022 – Dec 2022)

- Built background-removal API with OpenCV + Django REST achieving 92%+ segmentation accuracy.
- Contributed to Golndia.care & Sensaware.io platforms with Django backends and React frontends, including Stripe/PayPal payment integrations.

#### ICRL Labs, KICS, UET — Machine Learning Intern (Aug 2021 – Jan 2022)

- Implemented ML pipelines for breast cancer detection using open-source datasets.
- Contributed to YOLO-based disease/tower component detection and OCR preprocessing workflows.

### Freelance Developer — Fiverr (2019 – 2021)

- Delivered 20+ Al projects (classification, sentiment analysis, regression, OCR APIs).
- Built and deployed React, Node.js, and .NET MVC applications for international clients.

# **Selected Projects**

**Urdu OCR Engine** — CNN-LSTM model for recognizing Urdu script (~98% accuracy). **YOLOv8 Live Ticker Detection** — Automated news ticker extraction with ~98% detection accuracy. **Al Travel Assistant** — RAG-powered assistant using LangChain + FAISS for flight/visa queries. **Background Removal API** — OpenCV + Django REST service, achieving 92%+ segmentation accuracy.

# **Education**

**PUCIT**, **University of the Punjab** — MPhil, Artificial Intelligence (Oct 2024 – Oct 2026) **Lahore Garrison University** — B.S. Computer Science (Aug 2017 – Aug 2021)

# **Certificates**

- Machine Learning with Python Coursera (Sep 2021)
- Deep Learning Essentials with Keras Coursera (Feb 2022)
- Huawei Al Associate (HCIA-Al) Huawei ICT Academy (Nov 2021)