

Wajih Ul Hassan

Full-Stack & AI Engineer

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PROFESSIONAL SUMMARY

Full-Stack & AI Engineer with 3 years of experience building and shipping production web, mobile, and AI systems. Strong across the stack in Python (Django, Django REST Framework, FastAPI) and TypeScript (NestJS, Next.js, React, React Native), with hands-on experience in applied AI/ML — retrieval-augmented generation (RAG), LLM integrations, and computer-vision pipelines on AWS. Focused on clean, maintainable, event-driven architectures and reliable delivery.

TECHNICAL SKILLS

Languages:	Python, TypeScript, JavaScript, SQL
Backend:	Django, Django REST Framework, FastAPI, NestJS, Node.js, Celery, Redis, REST APIs, WebSockets
Frontend & Mobile:	React, Next.js, React Native, Redux, HTML, CSS, Tailwind CSS
AI / ML:	OpenAI, LangChain, RAG, FAISS, AWS Bedrock, Google Gemini, YOLOv11, ResNet, Qwen, Google Vision, OCR, Random Forest, scikit-learn, AWS Translate, Deep Learning
Cloud & DevOps:	AWS (Lambda, Step Functions, SAM, Bedrock, Textract), Docker, Git, CI/CD
Databases & Search:	PostgreSQL, MongoDB, Firebase, Elasticsearch

PROFESSIONAL EXPERIENCE

Software Engineer — Conovo

Jan 2023 – Present

Lahore, Pakistan

- SharpBrains (AI Applicant Tracking System):** Built an AI-powered ATS on Django 6 / DRF that automates resume scoring, candidate pipelines, interview scheduling, and offer management; designed an event-driven architecture (Celery + Redis, transactional event log) that decouples AI scoring from core domain logic, and integrated OpenAI, Zoom, and Veriff.
- Epiphany (Mental-Health RAG Chatbot):** Developed a retrieval-augmented chatbot with FastAPI, LangChain, and FAISS over a curated knowledge base, serving LLM responses via AWS Bedrock with PostgreSQL persistence.
- Scanning Automation (Computer-Vision OCR Pipeline):** Engineered a FastAPI service that locates document regions with YOLOv11 object detection, corrects orientation with a ResNet18 model, runs OCR via Google Vision, and extracts structured sender/receiver data using LLMs; indexed third-party database tables into Elasticsearch to power fast search over the records.
- CheckBob (Receipt Intelligence Pipeline):** Built an end-to-end receipt-processing pipeline that classifies receipts as structured vs unstructured with YOLO, routes OCR accordingly (Qwen for unstructured, PyMuPDF for structured), and categorizes each receipt as grocery or clothing using a Random Forest classifier (scikit-learn).
- FaceSwap (Deep Learning):** Used the FaceSwap deep-learning framework to swap faces between source and target images and video.
- Alchemist (Real-Estate Contracts Platform):** Built a Next.js property platform for creating and managing property contracts online, with PDF parsing, FCM push notifications, and Redux state management on a Node.js + MongoDB backend.
- TextBehind Content Intelligence (Serverless AI Pipeline):** Built a serverless content pipeline on AWS Lambda orchestrated by Step Functions, performing OCR (Textract), image captioning (Bedrock Pixtral), summarization, tone detection, and content matching; deployed independently per function with AWS SAM, and added a real-time multi-language translation feature (AWS Translate over WebSockets).
- Couple Harmony (Real-Time App Backend):** Implemented a real-time backend with Django Channels (WebSockets), Firebase push notifications, Celery background tasks, and AI-assisted features powered by Google Gemini.
- TextBehind AI & ClubVyre (Web Platforms):** Delivered full-stack and backend features for an AI image/content platform (Django + Next.js) and a community web platform (Django 5, PostgreSQL), shipping server-rendered pages and REST APIs.
- GLOS Job Parser (LLM Data Extraction):** Created a FastAPI service that parses free-text job adverts into structured taxonomy fields (title, salary, location, categories) using GPT-4o.

EDUCATION

BS in Computer Science

Pak-AIMS, Lahore, Pakistan

2023

CERTIFICATIONS

- Claude Code — Anthropic
- AI Fluency — Anthropic
- Microsoft Certified: Azure Fundamentals (AZ-900)