# Muhammad Ibtesam

Software Engineer | Backend, AI & Scalable Systems

Islamabad, Pakistan

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## Professional Profile

Computer Science undergraduate with hands-on experience in backend engineering, AI integration, and scalable system design. Experienced in building secure REST APIs, authentication systems, and production-ready applications. Passionate about high-performance systems, intelligent automation, and robust software architecture.

## Technical Skills

**Backend & Web:** FastAPI, Flask, Django, REST APIs, Streamlit
**Machine Learning & AI:** LLM APIs, Legal-BERT, Hugging Face, TensorFlow
**Databases:** MongoDB (GridFS), MySQL
**Cloud & DevOps:** AWS, Docker, Git, CI/CD
**Security:** JWT Authentication, RBAC, Secure File Handling
**Programming:** Python, C++

## Experience

**Software Engineering Intern  Backend & AI Systems**                                  Jul 2025 – Sep 2025
Eligence, NSTP, Islamabad

- Designed and deployed secure REST APIs for an Online Dispute Resolution platform.
- Implemented JWT-based authentication and role-based access control.
- Integrated AI recommendation engine using transformer-based embeddings.
- Built document processing pipeline using MongoDB GridFS and OCR.

**AI & Backend Intern**                                                                Jul 2024
AIyin Inc (Remote)

- Developed FastAPI services supporting AI-driven features.
- Integrated model inference workflows into backend architecture.
- Optimized API performance and reduced response latency.

## Selected Projects

**Online Dispute Resolution (ODR) Platform**
Developed a secure fintech platform with REST APIs, JWT authentication, AI-powered settlement recommendations, and document storage using MongoDB GridFS.

**AI Legal Chatbot**
Built an LLM-powered chatbot capable of answering legal contract queries using Flask backend and transformer embeddings.

**Image Watermarking System**
Created a machine learning solution for watermark detection and removal to enhance digital content protection.

**File Compression Utility**
Implemented Huffman Coding algorithm in C++ to improve storage efficiency.

**Language Translator Web App**
Built a multilingual web application using Streamlit integrated with translation APIs.

## Education

**BS Computer Science**                                                                2022 – 2026
National University of Sciences & Technology (NUST), Islamabad

## Certifications

Google Data Analytics (Coursera)   |   Deep Learning Specialization (DeepLearning.AI)   |   Python: Basic to Advanced (FAST University)   |   Prompt Engineering (OpenAI)