NOUMAN MUJAHID

Full Stack Python & AI Developer | CS Undergraduate

PERSONAL DETAILS

+92 327 4542140
noumannorm648@gmail.com
Johar Town, Lahore, Pakistan

PROFESSIONAL LINKS

github.com/Cs-NoumanMujahid
linkedin.com/in/nouman-mujahid
hireviaportfolio.vercel.app

PROFESSIONAL SUMMARY

CS Undergrad (7th Sem) specializing in AI-integrated web solutions and scalable backend architectures. Hands on experience in Python/Django & MERN stacks with a heavy focus on high-performance Computer Vision (YOLOv8, MediaPipe) and LLM-based RAG pipelines. Proven ability to build intelligent systems that reduce latency by up to 40% and deliver 90%+ accuracy in real-time inference tasks. Passionate about bridging the gap between advanced ML models and user-centric web interfaces.

TECHNICAL & SOFT SKILLS

Languages: Python, JavaScript (ES6+)

Frontend: React.js, Tailwind CSS, Framer Motion

DevOps/Tools: Docker, Git/GitHub, Postman, MongoDB, Redis

Backend: Django (REST), FastAPI, Node.js, Express

AI/ML: YOLOv8, MediaPipe, OpenCV, LangChain, Hugging Face

Soft Skills: Persistence, Team Synergy, Technical Communication, Rapid Learning

NOTABLE PROJECTS (VIEW PROFESSIONAL LINKS ABOVE)

GymFreak - AI Pose Analysis Platform

React.js, Django, OpenCV, MediaPipe

Architected a real-time health-tech solution utilizing MediaPipe's Pose Landmarker to monitor 33 key body landmarks. Integrated a Django REST backend for workout history management, achieving sub-50ms latency for posture correction feedback. Built interactive charts in React for granular progress tracking and user performance analytics.

Parallel RAG & Distributed Embedding

FastAPI, LangChain, Hugging Face

Engineered a high-throughput RAG pipeline with a multi-worker Producer-Worker architecture, reducing document embedding time by 40%. Orchestrated ingestion using all-MiniLM-L6-v2 embeddings for context-aware Q&A on massive datasets. Successfully processed 500+ pages per minute while maintaining high retrieval precision.

Ant Colony Neural Evolution Simulation

Python, Neural Nets, Genetic Algorithms

Built a complex bio-inspired simulation where 100+ agents evolve decision-making behaviors using 3-layer feed-forward neural networks. Implemented a custom Genetic Algorithm with tournament selection and Gaussian mutation to optimize foraging efficiency. Visualized real-time population heatmaps and neural weight shifts over 150 generations.

PyShooter - Real-time AI Object Detection

Python, YOLOv8, Pygame, OpenCV

Enhanced a 2D shooter game by custom-training a YOLOv8n model on a synthetic dataset of 500+ frames, achieving 91% mAP for target identification. Engineered a non-blocking multi-threaded inference pipeline in Pygame, ensuring 60 FPS gameplay execution while performing concurrent AI tactical analysis.

BECAFE - Modular MERN E-commerce

MongoDB, Express, React, Node.js

Developed a production-ready application with a modular service architecture managing 100+ SKUs. Features an advanced admin dashboard for SKU management, real-time order tracking, and inventory alerts. Implemented comprehensive security protocols including Bcrypt hashing, JWT-protected routes, and role-based access control (RBAC).

DiscoverSpace - NASA Data Visualization Hub

React, Django, NASA Public APIs

Designed a data-intensive portal consuming APOD, Mars Rover, and EPIC APIs to visualize petabytes of astronomical data. Utilized React-Query for robust server-state management and implemented intelligent API caching, leading to a 50% reduction in initial load times and improved UX for high-resolution imagery.

EDUCATION & CERTIFICATIONS

Comsats Institute of Information Technology
Bachelor of Computer Science (Semester 7)

2023 - Present

Cisco Networking Essentials — Cisco NetAcad [View Credential]