

Mohammad Huzaifa

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Summary

B.Tech Computer Science student specializing in Agentic AI, Machine Learning, and Backend Engineering. Proven track record of designing autonomous AI agents, fine-tuning LLMs, and building robust data curation pipelines. Experienced in designing scalable backend systems, database schemas, and custom workflow automations to improve operational efficiency.

Education

United Institute of Technology, Prayagraj <i>B.Tech in Computer Science and Engineering (7.47 CGPA up to 5th sem)</i>	2023 – 2027
Allahabad Public School, Prayagraj <i>Intermediate (85.8%) & High School (88.3%)</i>	2020 – 2022

Experience

Sanfy Consultancy Services Pvt. Ltd. (Orvanto AI) <u>Certificate</u> <i>Backend Developer Intern</i>	Apr 2026 – Jul 2026
- Designed and optimized high-throughput REST APIs and backend infrastructure using Python, FastAPI, and SQL. - Engineered custom n8n automation workflows and Docker environments to streamline data ingestion and system processes. - Collaborated with the product team to debug complex systems, integrate third-party APIs, and resolve database bottlenecks.	

Technical Projects

AnveshakSutra — Zero-Knowledge Breach Intelligence <u>GitHub</u> <u>Preview</u>	Aug 2026
- Architected a Zero-Knowledge K-Anonymity protocol (5-char SHA-256 prefix bucketing) querying breach pools with zero server identity leakage. - Built a 3D WebGL Graph ML blast radius engine (Betweenness Centrality) with Celery async sweepers and canary deception tripwires.	
Concept3D — AI Concept-to-3D Visualization <u>GitHub</u> <u>Preview</u>	Feb 2026 – Mar 2026
- Led backend and 3D data pipeline engineering to translate unstructured conceptual data into structured 3D generation inputs. - Streamlined generation workflows by designing an AI-driven semantic preprocessing pipeline (Python, PyTorch, Gen-AI).	
VaakKavach — Autonomous Edge AI Acoustic Defense <u>GitHub</u> <u>Preview</u>	Jan 2026 – Mar 2026
- Architected sub-15ms on-device acoustic DSP engine with native Kotlin AudioRecord ring buffers, FFT, and phase jitter metrics. - Engineered 100% offline serverless architecture with autonomous self-healing watchdog and SHA-256 SQLite forensic vault.	
ArkaSutra — 3D Spatial Solar Energy & Intelligence Engine <u>GitHub</u> <u>Preview</u>	Oct 2025
- Architected an autonomous solar AI agent with 60 FPS Three.js digital twin, CityGML LOD2 parsing, and shadow raycasting. - Implemented Perez clear-sky transposition physics (NREL PVLlib) and live satellite weather assimilation (ERA5).	
KavachG — AI-Based Safety KPI & Monitoring <u>GitHub</u> <u>Preview</u>	Apr 2025 – Jun 2025
- Developed machine learning pipelines and backend service integrations for a smart safety monitoring dashboard. - Deployed real-time computer vision models to automate safety compliance checks (OpenCV, FastAPI).	

Skills

Generative AI & Agentic Systems: Agentic AI, LLM Fine-Tuning, RAG, Data Curation
Machine Learning & CV: Machine Learning, Computer Vision, PyTorch, TensorFlow, Scikit-Learn, EDA
Backend & Data Engineering: FastAPI, SQL (DBMS), ETL, Data Modeling, WebSocket API
Programming Languages: Python, C++, C
Tools & Automation: Docker, Git/GitHub, n8n (Workflow Automation), Figma (UI/UX)

Publications & Certifications

- Physiochemical Pattern Fingerprinting (PPF): Protein Homology Detection (IJDDT, Vol. 16, Issue 4)**
Co-authored a memory-efficient approach to structurally-sensitive homology detection.
- CS50's Introduction to Artificial Intelligence with Python** — Covered search, ML, NLP, and AI in Python.

Achievements

- Prototype Sprint Qualifier, Sankalp 2026 (MNNIT Prayagraj)** — Built Concept3D for generating interactive 3D visualizations.
- Second Runner-Up, UHACK 4.0 Hackathon (United Group of Institutions)** — Built A.E.G.I.S audio scam detection pipeline.
- Second Runner-Up, CodeStorm'25 Hackathon (Shambhunath Group of Institutions)** — Built SunMap spatial prototype with Team IronLogic (now evolved into ArkaSutra).