ISHIKA JAIN
AI/ML Engineer | Advanced Conversational AI Expert
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EXPERIENCE

- **Edysor Edutech Solutions Pvt. Ltd.** *Aug 2025 – Present*
  AI/ML Engineer Udaipur

  – Built a **context-aware conversational AI system** for messaging platforms using advanced prompt engineering and structured LLM Agentic pipelines, replacing rigid rule-based flows and reducing manual query handling by **95%**.
  – Designed and deployed **VLM-powered document understanding pipelines** with custom preprocessing and validation layers, achieving **96% extraction accuracy** and reducing processing time by **98%**.
  – Applied **reinforcement learning–based optimization (RLAIF)** to real-time AI voice interactions, significantly improving speech naturalness and reducing conversational drop-offs by **60%**.
  – Automated complex user workflows including query resolution, intelligent matching, and document generation, reducing turnaround time from **days to hours** and improving operational efficiency by **over 90%**.
  – Led the development of an **automated AI video generation pipeline**, initially leveraging third-party avatar systems for rapid prototyping, and scaling the solution to support **1k+ concurrent sessions** with high contextual consistency.
  – Implemented **real-time conversational AI avatars** supporting multi-turn, emotion-aware dialogue, significantly enhancing user engagement and response accuracy in live interactions.
  – Designed and integrated **advanced noise cancellation and audio enhancement pipelines** to improve real-time voice clarity, reducing audio distortion by up to **99%**.
  – Built a **low-latency conversational AI architecture** optimizing context storage, summarization, and transfer, improving system responsiveness by **approximately 98%**.
  – Conducted advanced **R&D on custom AI avatar creation** using open-source generative and multimodal frameworks, focusing on controllability, synchronization, and production readiness.
  – Engineered a **fully in-house, end-to-end conversational humanoid AI avatar system**, replacing reliance on third-party SDKs, with custom speech processing, conversation management, and real-time audio–video synchronization for natural human-like interaction. Improved latency by 65%.

- **Consint Solutions Pvt. Ltd.** *Apr 2025 – Jul 2025*
  Data Scientist Intern – Generative AI Noida

  – Built an end-to-end **VLM pipeline** for passport entity extraction (Max Healthcare), improving accuracy from **30.45% to 98.06%** by replacing regex with a Textract + LLM hybrid.
  – Established benchmarks for open-source models **(GPT-4o mini, Gemini, Qwen 2.5)** on ground-truth datasets, achieving **20% faster evaluation** and standardized comparisons.
  – Developed **scalable inference pipelines** in production, enabling **10k+ daily document extractions** with **<1s latency**.
  – Implemented **LoRA**-based fine-tuning of **VLMs** on healthcare data, improving document understanding accuracy by **98–99%**.
  – Collaborated with the Chief AI Officer to deliver **enterprise-grade GenAI solutions**.

- **Global Infoventures Pvt. Ltd. (NVIDIA Partnership)** *December 2023 - June 2024*
  AI-ML Trainee Ghaziabad, India

  – Annotated 5500+ images using Roboflow and applied augmentation techniques, improving model robustness.
  – **Fine-tuned YOLOv7** for multiple projects (95% accuracy):
    * **PPE Kit Detection** using **CNN** with **Gmail API** alerts.
    * **Multi-Person Face Recognition** by generating **vector embeddings** with **dlib** and comparing them with saved datasets for real-time recognition.
    * **Parking Sticker Recognition** using OpenCV and Image Segmentation Technique.
  – **Deployed real-time inference pipelines** using **Flask**, **FastAPI**, **Docker**, and **Kubeflow** on **NVIDIA DGX-A100**, leveraging **mixed-precision PyTorch training** for optimized performance.

EDUCATION

- **B.Tech. in Computer Science & Artificial Intelligence** *Jul 2025 – Aug 2025*
  ABES Institute Of Technology, CGPA: **8.09 / 10** Ghaziabad

PROJECTS

– **AI Smart Glasses for the Visually Impaired** *Feb 2025 - Mar 2025*
  Python, OpenCV, NumPy, Haarcascade, LBPH, Tkinter, SQLite, pyttsx3/gTTS

  * Built AI-powered smart glasses for visually impaired, integrating CV with real-time audio feedback for navigation assistance.

Technical Skills

* **Conversational AI & Avatars:** Digital Humans · Real-Time Avatars · Talking-Head Synthesis · Audio-Driven Lip Sync · Facial Landmarks · Emotion-Aware Dialogue · Multi-Turn Conversations · Low-Latency Pipelines · Noise Cancellation
* **Generative AI & NLP:** LLM Fine-Tuning (LoRA/PEFT) · RAG · Prompt Engineering · Multi-Agent Systems · RLAIF · VLM Integration · Document Intelligence · Semantic Search · Multimodal Reasoning
* **ML & AI:** Deep Learning · Neural Networks · Transformers · Vision Models · Object Detection · Feature Engineering · Model Training · Data Pipelines
* **Voice AI:** Speech-to-Text · Text-to-Speech · Voice Cloning · Audio Enhancement · Streaming Audio · Turn-Taking · Speech Processing
* **Cloud / Deployment:** Cloud Computing · Containerization · API Services · Real-Time Streaming · Scalable Deployment · Inference Pipelines
* **Development & Tools:** Python · Node.js · Linux · Git · SQL · C/C++ · Backend Development · System Integration

Achievements

– **GATE Qualified (2025)** - Computer Science (CS) & Data Science/AI (DA).

– **Research Paper(2025)** - Accepted in Journal of Analytical Science and Technology (JAST).

– **Google Cloud Arcade 2025** - Earned **AI & GenAI skill badges.**.

– **NVIDIA AI Summit 2024 - Mumbai** - Analyzed insights on AI advancements in India from industry leaders.

– **1st Runner-Up, Ideathon 1.0 & 2.0** - Led a team through many rounds, securing a cash prize.

– **Team Leader, IIIT Delhi Hackathon** - Submitted project within the 24-hour deadline.

– **Runner-Up, Internal SIH** - Proposed AI solutions for under trial prisoners in India.

– **2nd Runner-Up, Chess (State Level)** - Represented ABESIT College **twice** at AKTU Sports Fest, Lucknow.