Mohammad Ishaan Hasan Ansari

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SUMMARY

Machine Learning Engineer with more than 2 years of experience working at the intersection of computer vision and large language models.

PROFESSIONAL EXPERIENCE

- **Think Future Technologies Pvt. Ltd [⊕]**   *October 2025 - Present*
  Software Engineer L2 (Machine Learning)   Gurugram, India
  - **Together AI**
    - **Product:** Matchmaking application for High Net Worth Individuals (HNIs), focused on creating meaningful and curated matches.
    - **Scoring:** Implemented a more intuitive, multi-parameter scoring system that evaluates compatibility across fields.
  - **CarDekho**
    - **Product:** AI-powered HRMS tool that automates workflows to improve HR efficiency and decision-making.
    - **Agentic RAG:** Implemented solution that combines document and database retrieval with a reasoning layer to produce personalized responses to complex HR queries.
    - **Impact:** Reduced manual handling of routine tasks, and enabled faster, explainable recommendations for HR operations.

- **Think Future Technologies Pvt. Ltd [⊕]**   *February 2024 - October 2025*
  Software Engineer L1 (Machine Learning)   Gurugram, India
  - **yHealth - GenAI health coach**
    - **Product:** Designed and piloted an AI-driven health coach specifically for diabetic patients to automate routine doctor–patient interactions.
    - **Retrieval:** Designed a multi-step retrieval pipeline with 15+ data readers and 13+ LLM calls, integrating filtering, recursion, and intent classification.
    - **Tools:** Built 4+ components, which includes food logging, next meal suggestion, digital twin, RAG pipeline, & chatbot for AI-driven action plans.
    - **Optimization:** Explored and benchmarked various techniques, optimized the inference pipeline and cut latency by 65%.
    - **HIPAA Compliance:** Implemented end-to-end PII anonymization and secured third-party integrations, resulting in zero compliance incidents across external audits.
  - **BSES - BRPL/YPL**
    - **Document-Parsing Search Optimization:** Redesigning search algorithms to index and retrieve document sections 3× faster, cutting average parse time from 6 s to 2 s.
    - **API-Call Reduction Logic:** Implementing relevance-based chunking to limit OpenAI API calls to critical text segments, reducing total monthly calls by 60% (from 10,000 to 4,000), while maintaining 95% answer accuracy.
  - **CAIR - Ministry of Defence**
    - **Layout Detection Model:** Developed a layout detection model to classify and segment newspaper content into articles, images, titles, and subtitles. Fine-tuned the model to achieve an accuracy exceeding **97%**.
    - **Optical Character Recognition (OCR):** Implemented OCR to extract textual data from perso-arabic images and documents, achieving overall accuracy of **83%**.
    - **Language Detection:** Built and fine-tuned a language detection model using FastText, optimized for multiple Perso-Arabic languages.
    - **Language Translation:** Conducted R&D on translation models like **NLLB** and **M2M100**. Developed training, fine-tuning, and evaluation pipelines for multilingual translation tasks.
  - **Recruitment system**
    - **Proctoring System:** To ensure fairness during remote assessments developed a proctoring system was developed, improved accuracy by **22%**, and reduced latency by **40%**.
    - **Recruitment system:** Trained **Machine Learning Ranking Models** for ranking developers for jobs using **Gradient Boosting Decision Tree (GBDT)** and **Logistic Regression** models using **pandas, numpy, scipy, scikit-learn** and **lightGBM** frameworks.

- **Think Future Technologies Pvt. Ltd [⊕]**   *August 2023 - January 2024*
  Software Trainee (Machine Learning)   Gurugram, India
  - Designed **CNN** architecture which reduces HEVC video compression artifacts by **6%** and leveraged GoogleNet's Inception blocks to reduce the number of learnable parameters by **50%**
  - Experimented with **GAN** architecture using 3 different loss functions (perceptual loss, smooth loss, and MSE loss) and performed hyperparameter tuning.

EDUCATION

• **Jamia Hamdard University** *August 2019 - July 2023*
Bachelor of Technology in Computer Science - 1st division with distinction New Delhi, India

AWARDS & RECOGNITION

• **Investor Presentations** *Sept 2025*
yHealth [🌐]
  ◦ Presented our product to doctors and investors at **ACCD 2025 - Asia Conference on Clinical Diagnostics**, receiving funding offers.

SKILLS

• **Technologies:** Python, C, C++, PyTorch, Tensorflow, LLMs, Agentic & Custom frameworks, Docker, Git/GitHub, FastAPI, HuggingFace, MLOps, Vector, Hybrid Databases, GCP, AWS.

• **Product development:** AI Product Management, Low and Hi-Fi Prototyping, Proof of Concepts, Risk Validation & Deployment, and Iterative MVP Development.