

Rishabh Kothari

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EDUCATION

AISSMS Institute of Information Technology

BTech in Artificial Intelligence and Data Science

2022 – 2026 (Expected)

CGPA: 7.72/10

EXPERIENCE

AI Engineer Intern | *Cyrino*

Sep 2025 – Present

- Engineered and integrated a multimodal AI Search platform (visual, metadata, OCR), **reducing search latency by 15%**; optimized **Vector Search (k-values)** and query analysis.
- Built advanced multi-agent systems using **Autogen** and integrated **NL2SQL** functionality into enterprise platforms, **automating over 50%** of incident triage requests.
- Developed a **GPT-4o-based claim validation** system for image and metadata comparison, and refactored the core AI codebase to **LangChain**, improving code modularity.

AI Engineer Intern | *ApexAI*

June 2025 – Sept 2025

- Built multilingual NLP pipeline to classify transcripts into 36+ categories with **95%+ accuracy** on Hinglish data.
- Finetuned and optimized **Qwen-3 32B** model via quantization and prompt engineering, enabling classification and CSV reporting under tight GPU/VRAM limits.
- Developed LLM-powered transcript-to-JSON tool with **90%+ accuracy**, reducing manual review effort by **80%**.

PROJECTS

Multi-Disease Predictor — Full-Stack ML App | *Python, FastAPI, React, MLflow, Docker*

- Built full-stack **ML system** predicting likelihood of **8 diseases** with **FastAPI** backend and **React** frontend.
- Enabled **API-driven retraining** and prediction; improved adaptability to new patient data.
- Achieved **85% average accuracy** using optimized preprocessing and **ensemble methods**.

Aryabhatta Search — AI-Powered Educational Engine | *Next.js, TypeScript, Supabase, Groq LLM*

- Developed search engine unifying educational content from **K–12** to postgraduate.
- Integrated **Groq LLM** for summaries and **TF-IDF** for recommendations, enhancing relevance.
- Added forums and parental controls backed by **Supabase & Prisma**.

Fantasy Sports Optimization Algorithm | *XGBoost, PuLP, Pandas, MLOps, Docker*

- Designed optimization model for fantasy sports team selection using **XGBoost + linear programming**.
- Automated data pipelines and containerized workflows with **Docker**.
- Built scalable retraining pipelines, enabling continuous updates with new player stats.

Conference Paper Publishability Classifier | *SciBERT, Sentence Transformers, Random Forest*

- Built a **semi-supervised classifier** to assess research paper publishability and recommend top-tier conferences.
- Leveraged **SciBERT embeddings + cosine similarity** for domain/topic alignment.
- Improved performance via a **self-training RandomForest pipeline** leveraging large amounts of unlabeled paper data.

TECHNICAL SKILLS

AI/ML/LLMs: PyTorch, Hugging Face, Transformers, Scikit-learn, LangChain, MCP, RAG

Web/Cloud/Tools: Python, JavaScript, SQL, Rust, FastAPI, React, Next.js, Docker, MLflow, AWS (EC2, S3), Git

ACHIEVEMENTS

- **Techathon 2.0 – Best Solution Winner** (Feb 2025): Secured 1st place in edtech category for building **Aryabhatta Search**, an AI-powered educational platform.
- **AIT Ideathon – First Place Winner** (Mar 2025): Won 1st place presenting the **Conference Paper Publishability Classifier** project.
- **IIT Kharagpur Data Science Hackathon – Finalist** (Jan 2025): Built a semi-supervised ML model to classify research paper publishability.