

# KAUSHIK MASLEKAR

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<https://github.com/KaushikMaslekar>

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## SUMMARY

AI Engineering enthusiast with experience in machine learning systems, IoT intelligence pipelines, and scalable backend infrastructure. Skilled in building AI-driven applications that integrate sensor data, machine learning models, and real-time analytics. Strong foundation in Python, distributed systems, and cloud-based ML deployment. Interested in building production-grade AI systems including intelligent monitoring, predictive analytics, and AI-powered automation.

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## EDUCATION

B.Tech. in Artificial Intelligence and Data Science (pursuing) **Aug 2024 - present**  
• Marathawada Mitra Mandal's Collage of Engineering, Karvenagar, Pune

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## TECHNICAL SKILLS

**AI & Deep Learning:** PyTorch, TensorFlow, Scikit-learn, Transformer Architecture, CNNs, RNN/LSTM, Attention Mechanisms

**LLM Engineering:** RAG, LangChain, LlamaIndex, Vector Databases (FAISS, Pinecone, Chroma), Prompt Engineering

**MLOps:** MLflow, Kubeflow, Docker, Kubernetes, CI/CD, Model Versioning

**AI Infrastructure:** GPU Computing, CUDA Basics, Distributed ML Systems

**Data Processing:** Pandas, NumPy, Apache Spark, Kafka

**Programming:** Python, SQL

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## EXPERIANCE

**Network Engineer Intern, Shri Software Technologies and Traniee** **Nov 2023 - Feb 2024**

- Configured and maintained network devices to ensure optimal performance.
- Monitored network traffic using industry-standard tools for performance analysis.
- Collaborated with team members on network design and implementation tasks.

**Java Dev Intern, Shri Software Technologies and Traniee** **July 2023 - Oct 2023**

- Collaborated with team members to develop innovative software solutions.
- Researched industry trends to support project development initiatives.
- Working on REST APIs and microservices

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## PROJECT: IoT-Based Fire Detection System with Machine Learning

**Frontend:** Created a responsive UI with ReactJS and NextJS for real-time data visualization and alerts.

**Backend:** Built a scalable Python backend to process sensor data and integrate ML models for fire prediction.

**Database:** Leveraged Firebase for efficient real-time data storage and retrieval.

**Hardware:** Utilized ESP32 for IoT-enabled environmental data collection.

**Machine Learning:** Implemented ML models to enhance fire detection accuracy.

**Technologies:** NextJS, Python, Firebase, ESP32, IoT, ML

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## PROJECT: Retrieval-Augmented Generation (RAG) Knowledge Assistant

### Description:

Built a domain-specific AI assistant using a Retrieval-Augmented Generation pipeline to answer questions from custom document collections. The system retrieves relevant context from indexed documents and augments LLM responses to improve factual accuracy and reduce hallucinations.

### Technologies:

Python, LangChain, FAISS / Chroma, HuggingFace Transformers, LLM APIs, Vector Embeddings