

AASHISH BAGMAR

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PROFILE

Artificial Intelligence and Data Science undergraduate experienced in building Generative AI, RAG, NLP, and machine learning systems using LangChain, Llama 3, FAISS, FastAPI, and Python, spanning document intelligence, conversational AI, and speech-based healthcare solutions. Published peer-reviewed AI research and delivered production software used in real-world business operations.

EDUCATION

Anantrao Pawar College of Engineering and Research

Bachelor of Engineering in Artificial Intelligence and Data Science (CGPA: 8.65)

Pune, India

Aug 2022 – May 2026

EXPERIENCE

Flutter Developer (Freelance)

2026

Shamsundar Industries

Pune, India

- Built and deployed a production-grade Android POS application in Flutter used for billing, inventory management, and reporting workflows across a team of 5 employees, reducing manual billing time by 80%.
- Implemented real-time Firestore sync with offline support using Hive caching and an offline queue, ensuring uninterrupted operations without network connectivity.
- Developed Bluetooth ESC/POS thermal printer integration, role-based access control for 2 user roles, device-locking security, and admin analytics with CSV and Excel export.
- Leveraged **Flutter**, **Firebase Firestore**, **Hive**, and **Provider** to build a reliable mobile-first solution supporting day-to-day business operations.

PROJECTS

Self-Corrective RAG Technical Documentation Assistant

GitHub

- Built a self-corrective Retrieval-Augmented Generation (RAG) system using **LangGraph**, **ChromaDB**, **FastAPI**, and **Ollama** as part of the Express Analytics AI/ML internship assignment.
- Engineered retrieval, LLM-based document grading, query rewriting, answer generation, and citation-backed responses.
- Integrated **PDF**, **DOCX**, **TXT**, and **Markdown** ingestion with semantic chunking and vector embeddings (**all-MiniLM-L6-v2**).
- Built document upload, incremental indexing, and a **Streamlit** UI with confidence scores, retry metadata, and source tracking.

CareCaller AI – Real-Time Voice Healthcare Assistant

GitHub

- Built a voice healthcare assistant with **Speech-to-Text (STT)** and **Text-to-Speech (TTS)** pipelines for real-time patient interaction, symptom assessment, and automated triaging.
- Developed **NLP** intent classification and machine learning risk prediction models to categorize patients into Low, Medium, and High-risk groups across healthcare scenarios.
- Designed **FastAPI** backend services with **REST APIs** for low-latency AI inference, integrating speech processing, NLU, risk prediction, and response generation into an automated screening pipeline.

PUBLICATIONS

StockSense: AI-Powered Prediction With Real-Time News Intelligence

Mar 2026

International Journal of Computer Applications, Vol. 187, No. 94 – DOI: 10.5120/ijca2026926631

- Co-authored a peer-reviewed research paper on AI-powered stock market forecasting that combines real-time news intelligence with predictive modeling.
- Published by Foundation of Computer Science (FCS), NY, USA.

SKILLS

Languages: Python, Java, SQL, Dart

AI/ML: Generative AI, LLMs, Retrieval-Augmented Generation (RAG), Machine Learning, Deep Learning, NLP, Prompt Engineering, Speech AI

AI Tools: LangChain, Ollama, Llama 3, FAISS, Hugging Face, Vector Databases

Frameworks & Databases/Cloud: FastAPI, Django, React, Flutter, PostgreSQL, Firebase Firestore, Supabase

Libraries: NumPy, Pandas, Scikit-learn, TensorFlow, PyTorch

Tools: Git, GitHub, Docker, Postman, Vercel, Render

Certifications: AWS Prompt Engineering – AWS Training | Data Analytics Job Simulation – Deloitte Australia (Forage)