PRATHAMESH PATIL

+91 87678 25953 ◇ LinkedIn GitHub Twitter Email
Kolhapur, Maharashtra 416003

EDUCATION

Indian Institute of Information Technology, Dharwad *Expected June 2027*
B.Tech in Data Science & Artificial Intelligence — Minor in Quantum Computing CGPA: 8.17

PROFESSIONAL EXPERIENCE

Hindustan Aeronautics Limited (HAL) Summer 2025
AI Engineer Intern *Bengaluru*

- Built a RAG-based Snag Rectification System (LangChain + FAISS) on 18,000+ historical records, achieving **90% retrieval accuracy**
- Developed a secure MERN interface with JWT-based RBAC, reducing manual troubleshooting time by **60%**
- Implemented metadata-aware chunking and vector indexing to minimize LLM hallucinations

Kleanify Sep–Oct 2025
AI Automation Intern *Remote*

- Built a scalable CSV ingestion pipeline (n8n, FastAPI, Supabase) handling **3+ weekly data sources**
- Developed a React-based data mapping UI, reducing manual data preparation time by **88%** (4+ hrs → 30 mins/week)
- Engineered staging workflows with fuzzy matching and validation rules, achieving **95%+ data quality**

IIIT Dharwad Jan 2025 – Present
Undergraduate Research Fellow

- Researching a hybrid architecture combining **ResNet-50, Vision Transformer, and Quantum Neural Networks (PennyLane)** for cyclone intensity estimation from multispectral satellite imagery

PROJECTS

AGILITY – Agile Developer Productivity Platform GitHub

- *Tech: VS Code Extension, Next.js, FastAPI, AST Parsing, RAG, LangChain, FAISS*
- Built a VS Code–integrated code intelligence pipeline using AST-based function and module-level semantic chunking
- Implemented a RAG workflow by embedding AST-derived code chunks in FAISS to ground LLM-based code review suggestions

DiagnosAI – AI-Powered Clinical Management System GitHub

- *Tech: React, FastAPI, MongoDB, RAG, FAISS, Gemini, Med42, Sarvam AI STT, LSTM*
- Built an end-to-end clinical portal with real-time transcription, automated medical document ingestion, and AI-powered diagnosis generation
- Implemented a multi-modal RAG system combining MongoDB-based patient context retrieval and FAISS-powered PDF search with JWT-based RBAC

MOODIT – Reddit-powered Sentiment Intelligence Platform GitHub

- *Tech: FastAPI, React, RoBERTa, RAG, Gemini API, Time-Series Forecasting*
- Built a sentiment analysis system using RoBERTa and time-series forecasting to predict sentiment trends
- Implemented a RAG pipeline to ground Gemini-based analytical Q&A with embedded Reddit discussions and interactive dashboards

ACHIEVEMENTS

Winner, Inter-IIIT National Hackathon 2026 — 1st place among 22 IIITs

Max Rank 88 (Day 2), Amazon ML Challenge 2025 — Top 0.35% among 84K+ teams

Winner, CODA (Clash of Data Analysts), 2024 — 1st place among 60+ teams

TECHNICAL STRENGTHS

Languages	Python, JavaScript/TypeScript, C++, SQL
Core Subjects	Data Structures & Algorithms, System Design, Operating Systems, Computer Networks, DBMS, OOP
Frameworks	React, Next.js, FastAPI, Node.js, Express
Infra & DevOps	Docker, Kubernetes, Kafka, Redis, Git, CI/CD
Databases	MongoDB, PostgreSQL (Supabase)
ML & AI	RAG, LangChain, FAISS, HuggingFace, Gemini API, PennyLane, TensorFlow, scikit-learn