Rushil Dhube

Pune, Maharashtra - 411017 | +91 7350850401 | rushildhube1305@gmail.com
linkedin.com/in/rushildhube | github.com/rushildhube

Generative AI Engineer | Healthcare AI | Production AI Systems | RAG & LLMs | Full Stack Backend

Professional Summary

Generative AI Engineer specializing in RAG, LLM-powered applications, and Healthcare AI. Experienced building production-scale AI systems including multi-tenant healthcare platforms, medical document intelligence pipelines, AI assistants, and computer vision solutions. Hands-on experience taking products from architecture to deployment. Graduating B.E. in AI & ML (SGPA: 9.07/10).

Technical Skills

Languages: Python, SQL, JavaScript
GenAI: LLMs, RAG, OpenAI API, Qdrant, Vector Search, Semantic Search, Prompt Engineering, TruLens, Ollama, LLM Applications, AI Evaluation
AI/ML: PyTorch, Hugging Face Transformers, TensorFlow, Computer Vision, CNNs, Vision Transformers (ViT)
Backend: FastAPI, Django, REST APIs, OAuth2/JWT, SSE Streaming, Twilio
Databases: PostgreSQL, MongoDB
DevOps & Cloud: Docker, GCP, Git, Linux

Experience

ethosh **Pune, India**
Artificial Intelligence Researcher *Jun 2026 - Present*

- Architecting a modular **Hospital Information Management System (HIMS)** covering IPD, OPD, Operation Theatre, and Pharmacy workflows, designed for scalable team ownership and future multi-hospital deployments.

ethosh **Pune, India**
Artificial Intelligence Engineer Intern *Dec 2025 - Jun 2026*

- Built a **multi-tenant Healthcare CRM** from scratch supporting multiple brands under a single deployment, with isolated data models, brand-level configurations, and role-based access control (RBAC) across **3 client companies** under one umbrella, reducing manual sales and marketing effort by **60%** during a 25-user pilot.
- Engineered a **visual customer journey engine** where marketers could define and manage patient communication flows as configurable node-based paths, similar to N8N workflows, with conditional branching and automated triggers.
- Integrated SMS and voice-based patient outreach with retry logic and delivery tracking; ensured full **HIPAA and DISHA compliance** with audit logging, data encryption, and access controls.
- Built a **Distributor Management Platform** for a medical product company spanning departments (Urology, Gastroenterology, Serology, etc.); solved a core data problem where only 45% of product codes followed a consistent index by designing a **custom tagging-based centralization system**, centralizing **34,000+ SKUs** and cutting onboarding time from **3-4 days to under 1 hour**.
- Onboarded **57 distributors** onto the platform with customized brochure generation, buy/sell order management, order tracking, currency exchange, analytics, and a full **role-based access system** for internal teams (Sales, Admin, Marketing) and external distributor users.

Prushal Technology Pvt. Ltd. **Pune, India**
AI/ML Intern *Sep 2025 - May 2026*

- Led a **4-member team** developing **Hsuit**, an AI-powered healthcare platform with five modules, delivering the core MVP within the internship timeline.
- Owned development of **Patient Report Analysis & Voice Summary**, an AI system that analyzed **45 real patient reports** (sourced from a nearby lab) and generated plain-language voice summaries in Hindi and English, helping patients understand complex results without medical assistance.
- Developed **medical document intelligence pipelines** capable of processing PDFs, images, and text-based reports using LLMs, OCR, and document parsing workflows.
- Implemented **AI guardrails and evaluation pipelines** to improve response safety, reliability, and quality across all platform modules.

Wellbe360 **Pune, India**
Artificial Intelligence Intern *Sep 2025 - Nov 2025*

- Built and shipped a **production-ready AI nutrition chatbot** with real-time personalized diet guidance, powered by a full **RAG pipeline** across **30+ nutrition guides and diet references**, with real-time streaming delivering responses with no perceived latency.
- Developed a **streaming backend** for real-time chat and meal-plan generation with JWT/OAuth2 auth, document uploads, and user feedback workflows.
- Implemented **PII masking, safety guardrails**, and diet-constraint validation; integrated automated evaluation pipelines to measure response safety, accuracy, and empathy.
- Architected async data models with JSONB for chat history and evaluations; containerized the full stack and shipped a lightweight frontend prototype.

SniperThink **Remote**
Artificial Intelligence Engineer *Sep 2025 - Dec 2025*
– Automated end-to-end social media content workflows with custom API integrations, reducing manual content generation effort by **70%**.
– Built and deployed **voice and chat agent workflows** integrating STT, TTS, Speech-to-Speech, and telephony systems, enabling 24/7 automated customer interactions.

Edunet Foundation (Microsoft & SAP-AICTE) **Remote**
Artificial Intelligence Intern *Feb 2025 - Apr 2025*
– Trained a custom **CNN for retinal disease classification** (Eye Disease Classifier), achieving **92.4% accuracy** on 5,000+ fundus images.
– Shipped a web application for real-time clinical diagnosis, optimizing inference to deliver results in **under 3 seconds**.

Flagship Project

AI Dental Diagnosis Platform | github.com/rushildhube **2025**
– Developed and deployed an end-to-end medical AI platform classifying **6 dental conditions** (Caries, Gingivitis, Hypodontia, Discoloration, Mouth Ulcer, Tooth Decay) from patient images.
– Fine-tuned a **Vision Transformer (ViT-B/16)** achieving **92.28% overall accuracy** and 0.99 F1-score for Mouth Ulcer detection.
– Architected a **microservice-based async backend** with OAuth2/JWT authentication, persistent storage, and automated email delivery for secure, scalable access.
– Optimized inference to deliver AI results in **under 3 seconds**; automated generation of medical-grade PDF reports with personalized treatment recommendations, validated across **100+ test users**.
– *Tech: PyTorch, ViT-B/16, FastAPI, MongoDB, Docker, OAuth2/JWT, SMTP*

Other Projects

ConsumeWise - WhatsApp Health AI Bot **2024**
– Created a WhatsApp AI bot (GitHub) for food ingredient risk analysis using OCR and NLP, achieving **90%+** detection accuracy for harmful substances.

Safe Surf AI - Browser Security Extension **2024**
– Built a real-time **URL threat detection Chrome extension** integrating VirusTotal API and homograph detection algorithms to protect users from phishing and malicious sites.

Education

ISBM College of Engineering **Pune, India**
B.E. in Artificial Intelligence & Machine Learning; SGPA (Final Year): ***9.07/10*** *2022 - 2026*
Vidyaniketan College **Mumbai, India**
Higher Secondary Certificate (HSC) - Science; 79.33% *2021*

Achievements

1st Place, State-Level Hackathon - Ajeenkya D.Y. Patil School of Technology
1st Place, Intra-College Hackathon - ISBM College of Engineering
1st Place, Project Exhibition - ISBM College of Engineering
Presenter, Aavishkar 2025 - SPPU Zonal Research Competition; AI-assisted dental diagnostics using panoramic X-rays, designed to augment clinical judgment rather than replace it.

Certifications

Python for Data Science - NPTEL (IIT Madras) | **Top 5% nationwide** performer.
Supervised Machine Learning - Coursera (Andrew Ng) | Regression, classification, and model evaluation.

Leadership & Community

Core Member, AIML Club (ISBM COE): Organized AI/ML workshops, hands-on sessions, and peer mentorship programs, helping 50+ students get started with machine learning and Python.
Open Source Contributor: Maintains public repositories on GitHub covering healthcare AI, RAG systems, and deep learning, with documented code and usage guides.