# Bharat Sanjay Dhande

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LinkedIn | GitHub

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## Professional Summary

Aspiring AI Engineer with strong expertise in Large Language Models (LLMs), Generative AI, and Retrieval-Augmented Generation (RAG). Skilled in prompt engineering, fine-tuning, and deploying AI models using frameworks like LangChain, Hugging Face, and LlamaIndex. Experienced in building agentic AI applications, workflow automation (Zapier/n8n), and deploying ML/LLM models on AWS (SageMaker, Lambda, Bedrock). Passionate about leveraging GenAI trends to develop scalable and intelligent AI-driven solutions.

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## Work Experience

AI/ML Engineer Intern
*Marworx Technology | Pune | Aug 2025 – Present*

- Built and fine-tuned transformer-based NLP models (Hugging Face Transformers) to develop a production-ready chatbot, improving intent recognition accuracy by ~**85%** and reducing response latency by **30%**
- Optimized **diffusion pipelines** for deployment, achieving **20% faster inference** and improved scalability.

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## Technical Skills

- **Programming:** Python, Java, SQL
- **LLM & GenAI:** Hugging Face, LangChain, LlamaIndex, RAG, Prompt Engineering
- **Frameworks & Libraries:** TensorFlow, PyTorch, scikit-learn, OpenCV, Pandas, NumPy, Matplotlib
- **Cloud & Deployment:** AWS (SageMaker, Lambda), Docker
- **Databases:** MySQL, PostgreSQL, Qdrant (Vector DB)
- **Web & Frontend:** Flask, FastAPI, React.js (basic), Streamlit, HTML, CSS, Bootstrap
- **Tools:** Git, GitHub, VS Code, Jupyter, Postman, PowerBI

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## Education

- **Bachelor of Computer Science and Engineering (Artificial Intelligence & Machine Learning)**
  Saraswati College of Engineering, Kharghar, Navi Mumbai | CGPA:7.6                        *- 2025*

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## Projects

**1) Smart Farm Using Machine Learning** | GitHub: Smart Farm

- Trained **Random Forest models** for crop and fertilizer prediction using synthetic agronomic data, achieving **93%+ accuracy** through hyperparameter tuning.
- Implemented **computer vision**-based plant disease detection using **OpenCV** and used imgaug for robust data augmentation.
- Developed an **NLP-**based chatbot using CountVectorizer and MultinomialNB for intent classification (crop, fertilizer, disease) to automate query resolution and guide users efficiently.
- Built a full-stack Django web app integrating all ML models with **multilingual** support.

**2) Big Mart Sales Prediction** | GitHub: Big-Mart Sales Prediction

- Developed a predictive model to forecast product sales across retail outlets using machine learning algorithms (**Linear Regression, Random Forest**).
- Cleaned and preprocessed data, handling missing values and encoding categorical variables for better model accuracy.
- Conducted exploratory data analysis **(EDA)** to uncover key patterns and relationships in sales data.

**3) RAGify – ChatBot** | GitHub:RAGify

- Developed an end-to-end **RAG (Retrieval-Augmented Generation) chatbot** using **LangChain**, **Streamlit**, and **Qdrant** to enable intelligent querying over PDF documents.
- **Integrated HuggingFace BGE embeddings** and **TinyLLaMA (Ollama)** to semantically understand and answer user questions based on document content.
- Built a responsive **Streamlit dashboard** that supports **PDF upload, vector embedding generation**, and **interactive chat interface** with embedded document preview.
- Deployed **Qdrant via Docker**, ensuring **real-time vector storage**

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## Certifications

- ExcelR – Data science & Data analytics  (Ongoing)
- Microsoft Azure - AZ 900 Fundamentals