

# Rudra Prashant Bhagat

Chhatrapati Sambhajinagar, Maharashtra, India

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## Professional Summary

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Entry-level AI and Machine Learning Engineer with strong hands-on experience in machine learning, deep learning, and data preprocessing. Proficient in Python, TensorFlow, PyTorch, and scikit-learn with demonstrated ability to build, train, optimize, and deploy machine learning models. Experienced in feature engineering, model evaluation, and collaborative delivery of AI-driven solutions.

## Technical Skills

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**Programming Languages:** Python, SQL

**Machine Learning:** Regression, Classification, Random Forest, XGBoost, Support Vector Machines, PCA, Clustering

**Deep Learning:** CNN, RNN, Transfer Learning, VGG16, ResNet

**Frameworks and Libraries:** TensorFlow, PyTorch, scikit-learn, NumPy, Pandas, OpenCV

**Data Processing:** Data Cleaning, Feature Engineering, Exploratory Data Analysis

**Tools:** Git, Flask, Streamlit, Jupyter Notebook, MySQL

## Experience

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### AI/ML Engineer

Oct 2024 – Present

*Farmseasy Tech Solution Private Limited*

- Contributing to an AI-powered crop life cycle management system designed to support over 1,000 farmers with crop stage insights and advisory automation.
- Engineering machine learning models for crop growth forecasting, nutrient estimation, and anomaly detection using satellite and environmental datasets, improving advisory accuracy by 20 to 30 percent.
- Collaborating with agronomists and product teams to convert domain expertise into structured datasets and machine learning-ready workflows.

### AI and Cloud Intern

Jul 2024 – Aug 2024

*IBM SkillsBuild (Edunet and AICTE)*

- Created a cloud-hosted AI chatbot handling over 500 test queries with average response latency under 1.5 seconds using IBM Cloud Functions.
- Utilized IBM AutoAI to shorten experimentation cycles by 40 percent and enhance model selection efficiency.
- Designed an LLM-powered intelligent workflow using Granite models to enable automated multi-step decision-making.

### Trainee - Software Design and Development

Jul 2022 – Aug 2022

*Modi Innovations Private Limited*

- Gained hands-on experience in .NET application development and end-to-end software workflows.
- Created responsive front-end interfaces using HTML and CSS aligned with project requirements.
- Supported an Industry 4.0-based project by delivering application screens and assisting with implementation tasks.

## Projects

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### AI Brain Tumor Detection System

- Designed a VGG16-based convolutional neural network that improved MRI brain tumor classification accuracy from 81 percent to 92 percent.
- Enhanced training efficiency through data augmentation and transfer learning, reducing overfitting by 18 percent.
- Optimized inference performance to approximately 140 milliseconds, enabling near real-time medical image predictions.
- Delivered a production-ready Flask API for consistent model inference.

### Electric Vehicle Sales Forecasting

- Processed over 1,000 electric vehicle sales records and performed seasonal decomposition to identify macro trends.
- Generated monthly BEV and PHEV forecasts using SARIMA models with 15 to 20 percent lower error metrics.
- Applied complete analytical workflows including diagnostics and model comparison.
- Released a Streamlit dashboard used by more than 50 test users for real-time forecasting.

### Fitness Buddy – AI Fitness Assistant

- Designed an LLM-powered fitness assistant with contextual understanding and entity extraction, improving accuracy by 35 percent.
- Achieved inference latency under 2 seconds through optimized cloud endpoints.
- Built a structured conversational pipeline that increased user engagement by 23 percent.
- Applied prompt engineering techniques to reduce hallucinations by 28 percent.

## Education

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### B.Tech in Computer Science and Engineering (AI/ML)

**2023 – Present**

Deogiri Institute of Engineering and Management Studies, Maharashtra

### Diploma in Computer Engineering

**2020 – 2023**

MGM Polytechnic, Maharashtra

## Certifications

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- Python for Data Science – Cognitive.io
- SQL (Basic) – HackerRank
- Git and GitHub – EXCELR
- British Airways Data Science Job Simulation – Forage
- IBM SkillsBuild AI & Cloud Internship
- Generative AI Mastery Workshop - NXTWAVE