# **Tejas Patil**

# AI/ML Engineer

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# **PROFILE**

AI/ML Engineer with experience in building computer vision systems, LLM-powered chatbots, and IoT solutions. Specialized in model optimization and deployment, improving image processing accuracy by 40% and automating support workflows to reduce manual workload by 60%.

### PROFESSIONAL EXPERIENCE

# Software Development Engineer

06/2024 – present Pune

### **System Performance & Monitoring**

• Improved ML service monitoring with Grafana, reducing downtime by 30% and accelerating issue resolution by 25%.

### **Computer Vision & Imaging**

- Enhanced camera calibration, increasing distance accuracy by 25% and reducing false readings by 40% for clearer dental images.
- Built 3D dental models with NeRF, cutting reconstruction time by 35% and improving patient diagnosis.

# Generative AI for Imaging

- Boosted dataset quality with a custom GAN, improving model training accuracy by **40%**.
- Fine-tuned Stable Diffusion and ControlNet, increasing dental smile correction accuracy by 25%.

#### Hardware & IoT

- Migrated applications to **Raspberry Pi 5**, improving processing speed by **20%** and delivering interactive visual feedback for better user experience.
- Configured an Adafruit screen with GPIO pins to display interactive visual feedback such as animated smiles, enhancing user engagement and photo capture experience.

### **Customer Support Automation**

• Built an **LLM-powered chatbot**, automating **60**% of customer queries and reducing response time by **45**%.

### **EDUCATION**

# **Master of Computer Applications**

07/2023 – 05/2025 Pune

SRI BALAJI UNIVERSITY 8.02 CGPA

**Bachelor of Business Administration in Computer Applications**MODERN COLLEGE OF COMMERCE AND COMPUTER STUDIES

07/2020 – 05/2023 Pune

9.02 CGPA

# **PROJECTS**

### YouTube Adview Prediction

(Machine Learning, Exploratory Data Analysis, Scikit learn)

Developed a machine learning pipeline for predicting YouTube ad views (15,000+ video records).
Achieved 88% model accuracy using XGBoost and deployed a Flask-based API on Render for real-time predictions.

# **CERTIFICATES & ACHIEVEMENTS**

- Python & Data Science : Ethan's Tech
- Big Data Engineering with Hadoop, Spark, Databricks, Azure, GCP - ongoing
- Generative AI : LinkedIn & Deep Learning
- Hacker rank: Achieved 400+ points in Python and SQL and achieved a badges
- Machine Learning : Internship Studio

### **SKILLS**

### **Programming Languages**

Python, JavaScript, HTML, CSS

### **Data Science**

Machine Learning, Deep Learning, Data Analytics, Statistics, Generative AI, LLM Chatbot

#### Version control

Github,, GItLab, Grafana, Linux, Shell Scripting

### Cloud & Big Data technologies

GCP, Databricks, Apache Spark, Apache Hadoop

#### Framework

OpenCV, Django, Langchain, Flask, Nerf studio, Selenium, Flask, Langchain

### Libraries

Pandas, Numpy, Matplotlib, Seaborn, Scikit Learn, Tensorflow, Keras, Transformers

#### **Databases**

 $SQL\,(MySQL,PostgreSQL),NoSQL(MongoDB),\\TimescaleDB$