Rohit Gomes

AI Engineer | Deep Learning Enthusiast | ML Developer | Aspiring Researcher | Final-Year B.Tech CSE (AI-ML)

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Profiles

RohitXJ
GitHub

Rohit Gomes
Linkedin

Summary

AI Engineer specializing in machine learning, deep learning, and model interpretability. Experienced in end-to-end ML pipelines, real-world deployment, and model explainability using SHAP. Strong Python skills with practical expertise in PyTorch, scikit-learn, and structured data modeling. Adept at building scalable, interpretable solutions in classification, NLP, and computer vision tasks. Actively leading projects and research initiatives in both academic and applied AI domains.

Education

Brainware University — **July 2022 - Present**
Computer Science and Engineering (Specialization: AI & ML) — Bachelor of Technology (B.Tech)
8.7 GPA (Current)

St Stephen's School Dum Dum — **2022**
72.25% — Higher Secondary (Class 12 – Science Stream)

St Stephen's School Habra — **2020**
77.8% — Secondary Education (Class 10)

Projects

ML Model Evaluation Dashboard — **July 2025**

A modular machine learning evaluation tool with an interactive Streamlit frontend.

A Streamlit tool for no-code ML model testing. Supports CSV upload, target selection, model comparison, PCA, and feature selection for quick visual evaluation.

Machine Learning, Streamlit, Model Evaluation, PCA, Feature Selection, Logistic Regression, Scikit-learn, Pandas, Matplotlib, Dashboard, Data Analysis

Few-Shot Classifier Web UI — **July 2025**

Built a Streamlit app to solve the problem of testing few-shot classifiers without code. Enabled fast upload, prediction, and model export for support-query image tasks.

Deployed a modular web app that simplifies few-shot evaluation by wrapping backend logic into an accessible interface. Integrated dynamic upload, real-time prediction, and model export.

few-shot learning, Streamlit, image classification, computer vision, UI, deployment, PyTorch, web app

few_shot_lib (Python Library at PyPI) — **July 2025**

Created a library to streamline few-shot learning workflows by abstracting support-query handling, classification logic, and model export.

Enabled reproducible and reusable few-shot pipelines by abstracting common components into clean APIs. Used in multiple downstream tools including the Few-Shot Web UI.

few-shot learning, library design, image processing, modular code, PyTorch, software engineering, ML infrastructure, PyPI

CropCure: Plant Disease Classifier — **Jan 2025 – Feb 2025**

Lightweight leaf-image disease detector

Transfer-learned MobileNetV2 on PlantVillage; 97 % top-1 accuracy; quantized model served via Flask on Raspberry Pi for offline use

Computer Vision, MobileNetV2, Transfer Learning, Quantization, Flask, Edge AI, Agriculture, PyTorch

Skills

Python
Core language for ML/DL projects.
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NumPy, Pandas, Scikit-learn, PyTorch, Matplotlib

Machine Learning
Built models for regression, classification & clustering
●●●●○
Random Forest, SVM, Logistic Regression, KMeans

Deep Learning
Used CNNs for image-based tasks
●●●○○
PyTorch, CNN, MLP, Dropout, FC

Data Processing
Cleaned, scaled, and reduced features
●●●●○
PCA, StandardScaler, Encoding

SQL & MySQL
Queried and linked structured data
●●●○○
Joins, Filtering, MySQL

Git
Version control for ML projects
●●●○○
GitHub, Branching, Commits

Web Deployment (Basic)
Deployed models using Flask/Streamlit
●●○○○
Flask, API, Gradio

C++
Used in academic OOP and logic tasks
●●○○○
OOP, Loops, Arrays, Vectors

Interests

Deep Learning
CNN, Transfer Learning, PyTorch, Image Tasks, Model Optimization

Computer Vision
Object Detection, Image Classification, Edge AI, MobileNetV2, ResNets, DenseNets

Research & Innovation
Few-Shot Learning, MAML, Meta-Learning, Vision Papers

AI for Real-World Impact
AgriTech, FinTech, Healthcare, ML Pipelines, Automation

Languages

English
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Bengali
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Hindi
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