Mayank Bansal

Email: bansalmayank1414@gmail.com | Phone: +91 8708574164
GitHub: https://github.com/Mayank149 | LinkedIn: https://www.linkedin.com/in/mayank-bansal14

PROFILE

BTech CSE student with hands-on experience in Python development, machine learning, and web APIs. Built and deployed multiple end-to-end ML projects involving real-world data, model deployment, and frontend-backend integration. Passionate about solving real problems through intelligent systems.

SKILLS

- **Languages:** Python, HTML, CSS, JavaScript, Java
- **Machine Learning:** TensorFlow, Scikit-learn, Pandas, NumPy, Matplotlib, Librosa, TF-IDF
- **Web Development:** Flask, REST APIs, Deployment, UI Design
- **Tools:** Git, GitHub, Jupyter Notebook

PROJECTS

DigiDetect – Handwritten Digit Recognition

• Full-stack web app for handwritten digit recognition using a custom CNN (98.9% accuracy on MNIST).

• Users can draw digits on a canvas or upload images; app predicts the digit and shows model confidence in real time.

• Features intelligent image preprocessing and a clean, responsive frontend. Built with TensorFlow, Flask, and vanilla JS/HTML/CSS.

StyleNet – Fashion Image Classifier

• Fashion image classifier trained on Fashion MNIST using a CNN with Batch Normalization and Dropout (~91% test accuracy).

• Flask API for image uploads and predictions; minimal frontend for easy testing; robust preprocessing for consistency.

• Focused on end-to-end workflow: model design, optimization, deployment, and frontend integration.

WasteSnap – Real-Time Waste Classification

Tech Stack: Python, TensorFlow, Flask, HTML, CSS, JavaScript, MobileNetV2, Render

- Built and deployed an AI-powered web app to classify 9 types of waste in real-time using images from camera or upload.
- Fine-tuned MobileNetV2 model on a custom dataset; achieved ~61% validation accuracy.
- Designed a responsive frontend with clean UI and environmental theme using pure HTML/CSS/JS.

- Displayed confidence score, recyclability, and smart disposal tips to promote eco-conscious behaviour.
- Deployed production-ready backend using Flask + Gunicorn on Render with optimized API endpoints.

Mood2Mail (Email Tone Analyzer)

- Built a tone-detection app using TF-IDF with Naive Bayes.
- Real-time feedback on email tones (Friendly, Formal, Aggressive, etc.) via Flask API and JS frontend.

Fake Job Posting Detector

- Developed a Logistic Regression model to detect fraudulent job listings.
- Deployed with a clean, responsive frontend using Flask and vanilla JS.

Car Mileage Predictor

- Trained a Linear Regression model with feature engineering and Grid Search.
- Built a deployment-ready interface to predict mileage from user inputs.

Music Genre Classification API

- Used Librosa to extract audio features and predict genres via Flask API.
- Handled MP3/WAV input formats and resolved backend deployment issues (CORS, NumPy compatibility).

Movie Recommendation System

- Created a content-based recommender system in Python.
- Suggests similar movies based on title and genre correlations.

EDUCATION

BTech in Computer Science & Engineering
Lovely Professional University — 2nd Year

CERTIFICATIONS

- Google's Machine Learning Crash Course
- Python Beginner Certification – GeeksforGeeks
- Elements of AI – University of Helsinki
- AI Productivity Hacks – LinkedIn Learning
- Introduction to Prompt Engineering – LinkedIn Learning