

Hitesh Patil

Pune, India | +91 70482 62306 | thegooddevil00@proton.me | github.com/TheGoodDevil00 | linkedin.com/in/hitesh-patil07

Education

AISSMS Institute of Information Technology, Pune

B.Tech in Electronics and Telecommunication Engineering

2025 – Present

GPA: 8.00 / 10

Experience

Catalyst Tech Club

AI/ML Cohort Member

Pune, India

Current

- Selected as part of the college AI/ML cohort focused on applied machine learning, EDA, and project-based learning.
- Attend weekend technical sessions and contribute ~20 hours/week toward self-learning and project development.
- Build applied ML and backend-integrated projects to reinforce concepts learned through the cohort.

Projects

WalkSafe – Safety-Aware Pedestrian Routing System

[GitHub](#) →

Tech: Python, FastAPI, Flutter, Docker, Valhalla, OSMnx, PostGIS, H3, Shapely, ngrok

- Built an end-to-end geospatial navigation system that prioritizes pedestrian safety over shortest-path routing.
- Designed a safety scoring model using OSM features (lighting, sidewalks, road type, speed).
- Implemented a spatial data pipeline with OSMnx, PostGIS, and H3 indexing to store scored road segments and aggregate neighborhood-level safety zones.
- Integrated a FastAPI backend with a self-hosted Valhalla routing engine and a Flutter mobile app: route visualization, live navigation, safety overlays, SOS alerts, and incident reporting.
- Deployed a shareable demo APK via ngrok-tunneled backend for Android testing without cloud infrastructure.

Machine Learning & Data Analysis Projects

Tech: Python, Pandas, NumPy, Scikit-learn, Matplotlib, Seaborn, Joblib, Streamlit, FastAPI

- Completed multiple ML and EDA projects on Iris, Titanic, and housing prices datasets with preprocessing, visualization, and model training pipelines.
- Applied feature scaling and hyperparameter tuning to improve model accuracy by an average of 9–9.5% and reduce MSE by 4–5%.
- Persisted trained models with Joblib and built a FastAPI + Streamlit interface for end-to-end prediction and visualization.

Skills

Languages	Python
Frameworks	FastAPI, Streamlit
Libraries	Pandas, NumPy, Scikit-learn, Matplotlib, Seaborn
Tools	Git, GitHub, Linux, Docker, ngrok, venv
Concepts	EDA, feature scaling, hyperparameter tuning, REST APIs, geospatial processing, model deployment

Additional Information

- Comfortable with Git branching, merge requests, and PR-based collaborative workflows.
- Familiar with Linux command-line usage, filesystem navigation, and light shell scripting.
- Active GitHub profile at github.com/TheGoodDevil00 with ongoing project development.