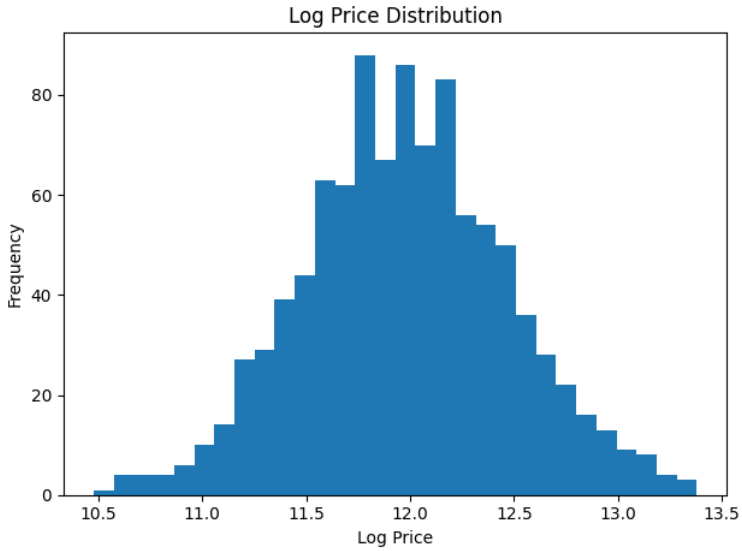
Satellite-Based Property Price Prediction
Project Report

1. Overview

This project predicts property prices by combining tabular real-estate features with satellite imagery. A multimodal architecture was designed to compare tabular-only models against models enriched with visual context.

2. Exploratory Data Analysis (EDA)

The following figure shows the log-transformed price distribution used for model stabilization and performance improvement.

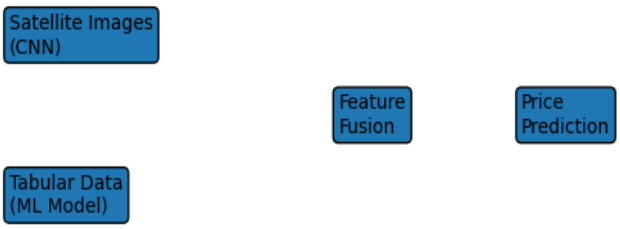


3. Financial & Visual Insights

Visual inspection and learned CNN features suggest that green coverage, lower building density, and open land positively influence prices, whereas dense concrete structures correlate with lower valuation.

4. Architecture Diagram

The diagram below illustrates how satellite images and tabular data are processed independently and fused for final prediction.



5. Results

Tabular-only models performed strongly, but the combined Tabular + Satellite Image model achieved superior predictive accuracy, confirming the added value of visual neighborhood context.