Fake Currency Detection using CNN

By

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Project Overview

This project detects fake currency. We use a CNN model.

The system classifies notes as real or fake.

It's based on extracted image features.

Dataset Details

Dataset Name

Fake Currency Dataset

Source

Kaggle

Image Processing

Images are preprocessed for training.

CNN Model Architecture

ResNet50 Base

Pretrained ResNet50 is the foundation.

Custom Layers

Fully connected layers are added.

Dropout

Dropout layers prevent overfitting.

Output Layer

Dense layer with softmax activation.

Model Training Process
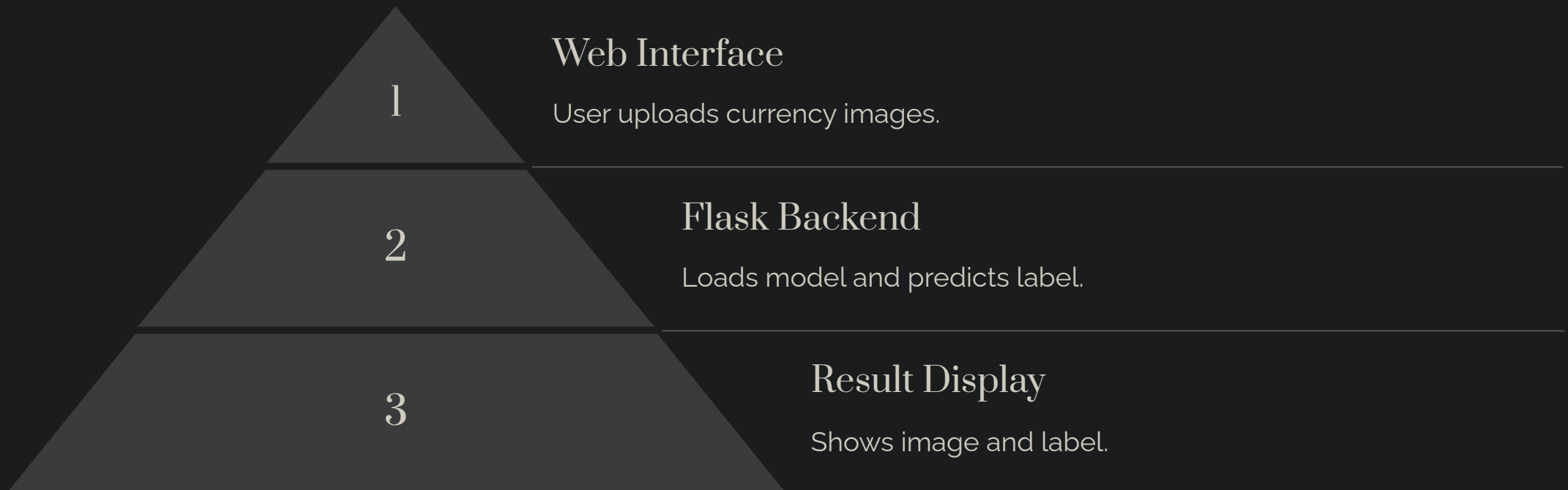
Loss Function

Categorical Crossentropy

Optimizer

SGD (lr=1e-6, momentum=0.9)

Callbacks

EarlyStopping, ModelCheckpoint

Flask Deployment

1

Web Interface

User uploads currency images.

2

Flask Backend

Loads model and predicts label.

3

Result Display

Shows image and label.

Fake Currency Detection

Choose File | No file chosen

Predict

Prediction: Real

Try Another

Prediction: Fake

Try Another

Results and Accuracy

✓

High Accuracy

Effective Detection

Real-time Deployment

Conclusion

Web Access

Effective Solution

CNN-based

1

2

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