

# CNN Model Architect

## Project : Currency Banknote Classification

### 1. Model Overview

- CNN designed in **Keras/TensorFlow** for classifying **11 banknote classes** from **128×128 RGB images**.
- Architecture includes **Conv2D, MaxPooling2D, Dense, Dropout** layers.
- **Output layer:** Dense with Softmax activation.

### 2. Model Architecture

1. **Conv2D + ReLU + BatchNormalization** → feature extraction
2. **MaxPooling2D** → dimensionality reduction
3. Repeat Conv2D + MaxPooling layers (32 → 64 → 128 filters)
4. **Flatten** → Dense(256) + Dropout(0.5)
5. **Output layer** → Dense(num\_classes=11, Softmax)