

## Settings

✓ Model loaded from:  
/app/model/sports-ball-  
classification/model.keras

🔍 Using layer: conv\_128\_3  
for Grad-CAM

## Grad-CAM Settings

Heatmap Intensity  
0.50

Colormap

jet

## Supported Categories

- American Football
- Baseball
- Basketball
- Billiard Ball
- Bowling Ball
- Cricket Ball
- Football
- Golf Ball
- Hockey Ball
- Hockey Puck
- Rugby Ball
- Shuttlecock
- Table Tennis Ball
- Tennis Ball
- Volleyball

# Sports Ball Classification with Grad-CAM

Upload an image of a sports ball to classify it and see what the AI is looking at!

## Upload Image

Choose an image of a sports ball...



Drag and drop file here  
Limit 200MB per file • JPG, JPE...

Browse files



volleyball\_138.jpg 81.7KB



☐ Use sample image for demo



Original Image

## Grad-CAM Heatmap



What the model is looking at

> 🎨 View raw heatmap

## Prediction Results

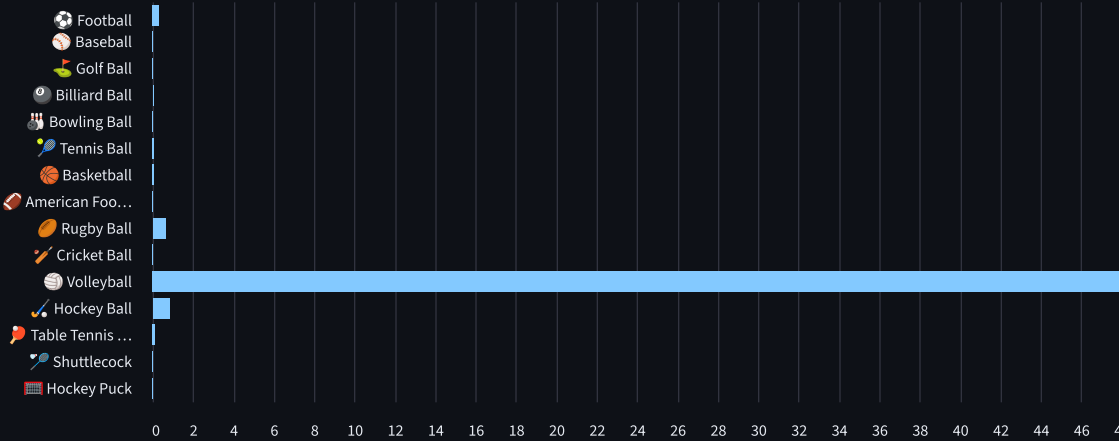


# Volleyball

Confidence: 97.9%

High Confidence

## All Confidence Scores



> View detailed scores

## How Grad-CAM Works

Grad-CAM (Gradient-weighted Class Activation Mapping) is an explainability technique that highlights the regions of an image that are most important for the model's prediction.

- **Red/Yellow areas:** High importance - the model focuses heavily on these regions
- **Blue/Green areas:** Low importance - less relevant for the prediction
- **Overlay:** Combines the heatmap with the original image for easy interpretation

This helps us understand *what* the model is looking at and verify it's making decisions based on relevant features (like the ball's shape and texture) rather than background artifacts.