

# Detect and Identify Objects in an Image

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# Module Overview



**Understand object detection systems**

**Implementation of an object detection system using cascade classifiers**

**Implementation of an object detection system using the YOLO object detector**

# Understanding Object Detection

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# Object Detection

The process of finding instances of real-world objects within images or videos.

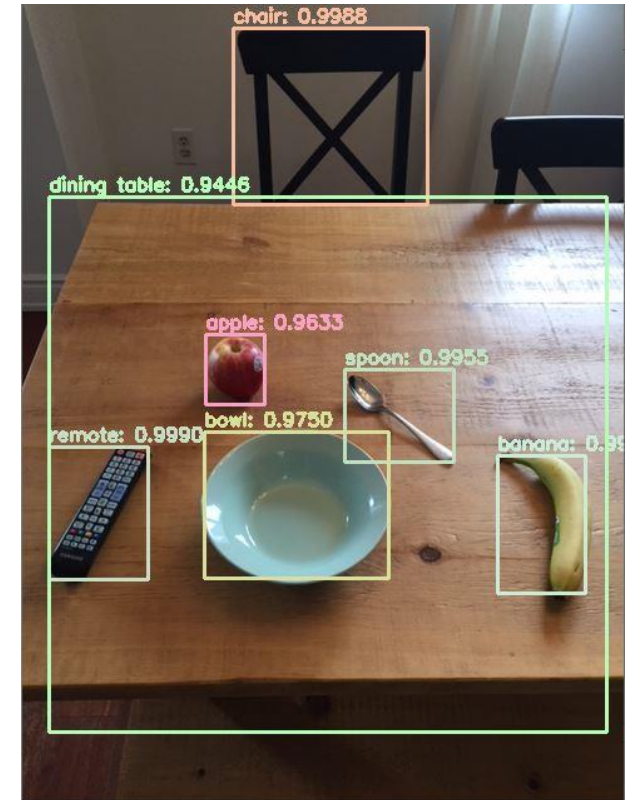
# Object Detection



Image Classification:  
Apple



Image Classification:  
Banana



Object Detection

# Object Detection Applications



Facial Recognition



Medical Imaging



Robotics &  
Automation

# Implementing Object Detection with Cascade Classifiers

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# Cascade Classifier

A machine learning based approach where a cascading function is trained from a number of positive and negative images.



# Implementing Object Detection with YOLO

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# Summary



Understood object detection systems

Implemented an object detection system using cascade classifiers

Implemented an object detection system using the YOLO object detector