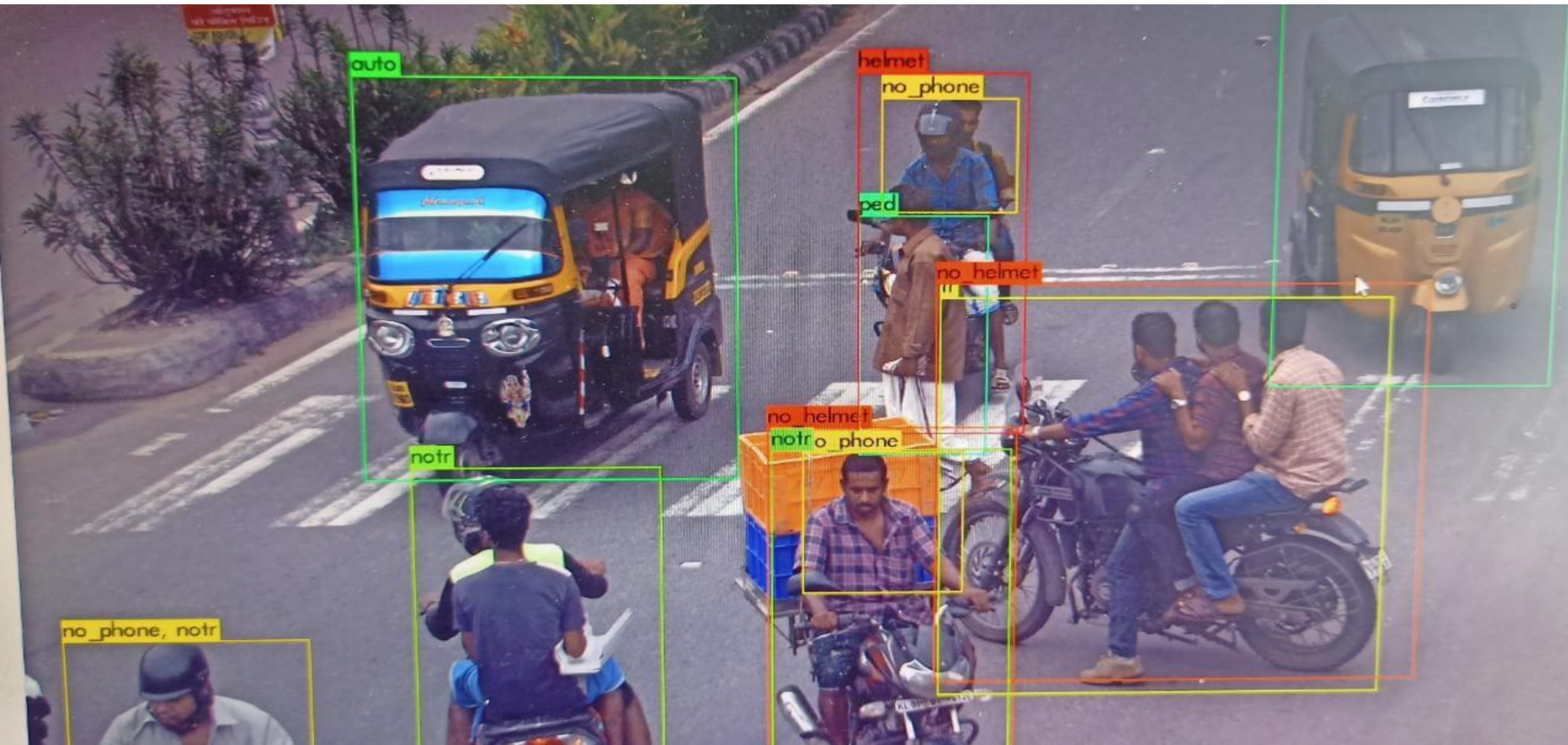


# Session

## Computer Vision Concepts

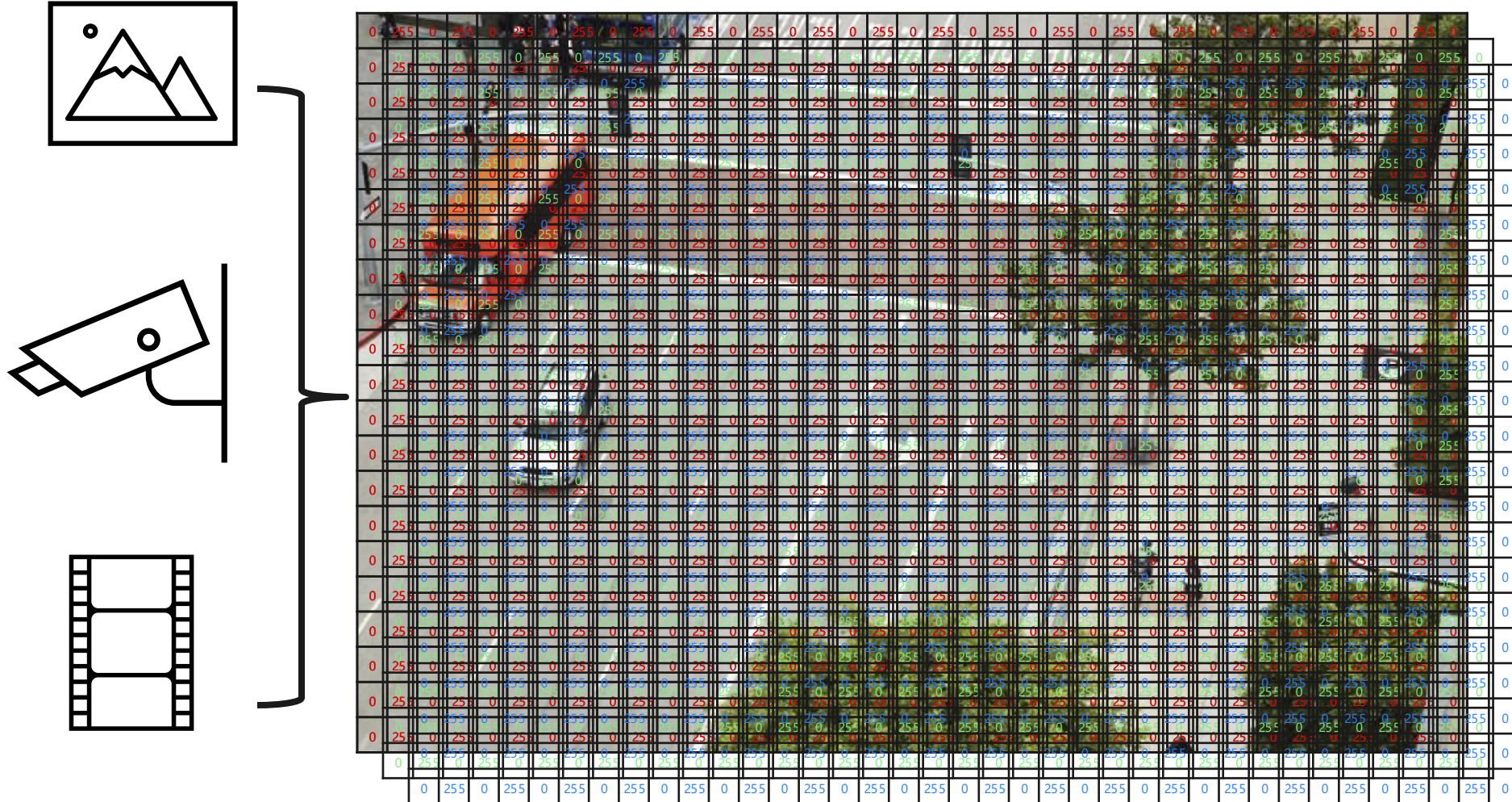


# What is Computer Vision?





# What is Computer Vision?



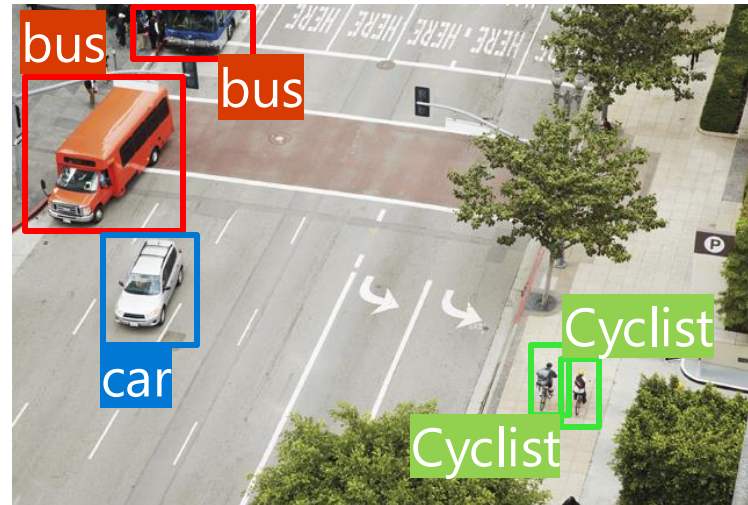


# Applications of Computer Vision

Image Classification



Object Detection



Semantic Segmentation

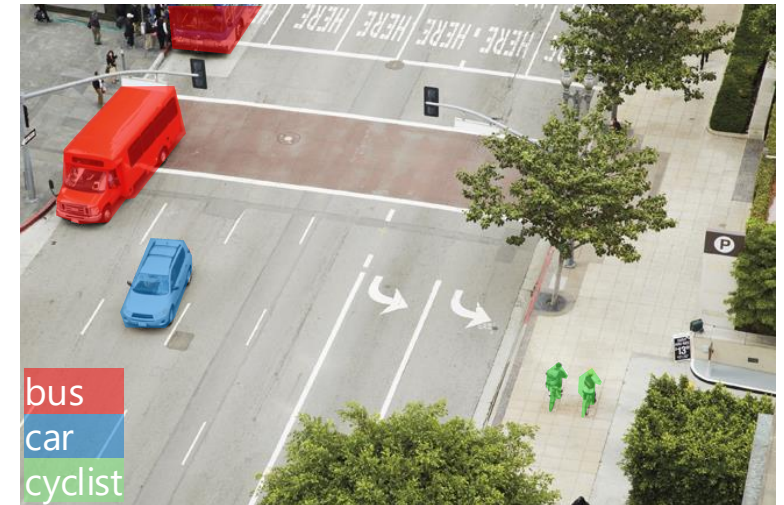
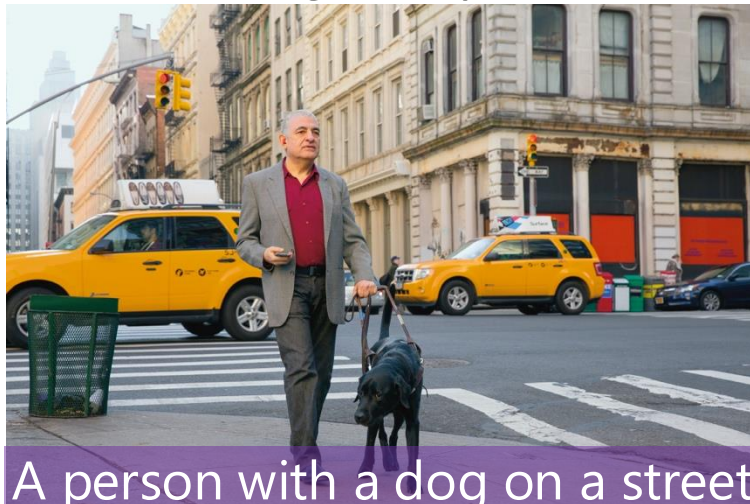


Image Analysis



Face Detection & Recognition



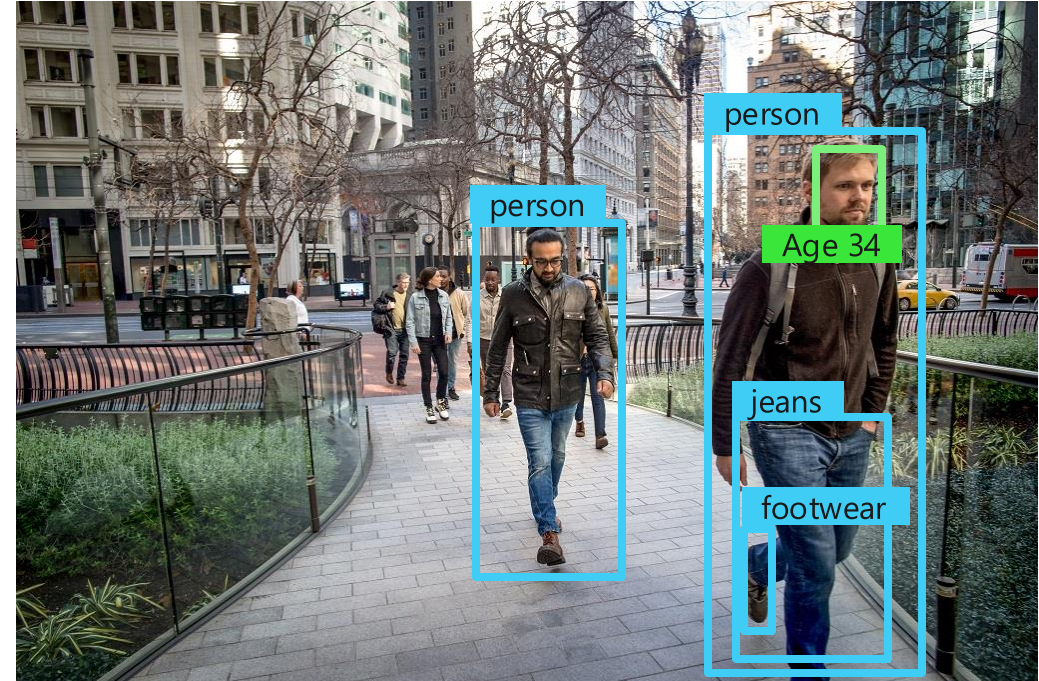
Optical Character Recognition





# Image Analysis

- Object detection for over 10,000 predefined classes
- Image description and tag generation
- Face detection and analysis
- Content moderation
- Text detection and OCR



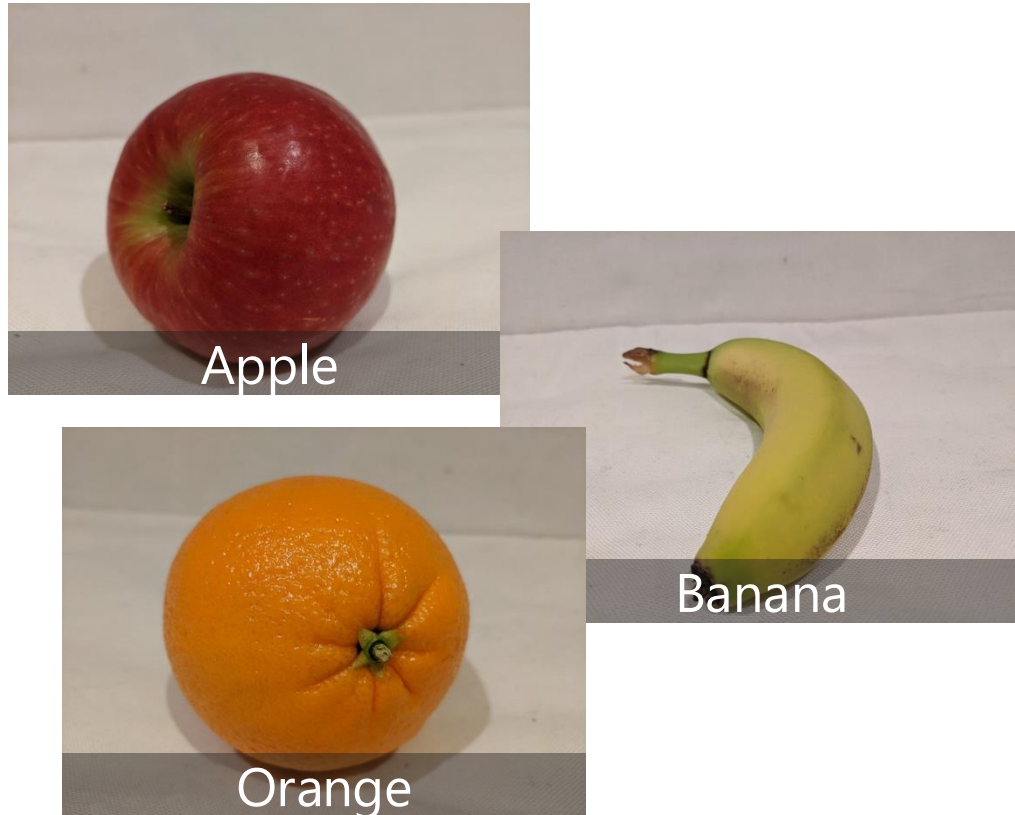
**Caption:** a group of people walking on a sidewalk

**Tags:** building, jeans, street, outdoor, jacket, city, person

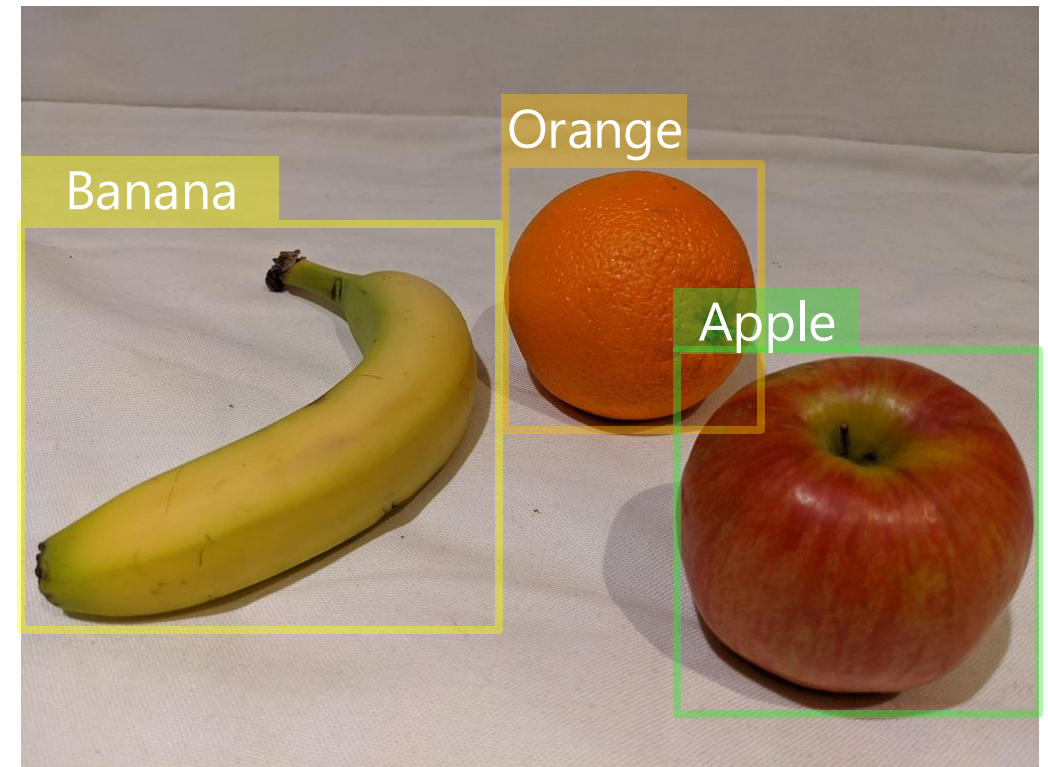
**Ratings:** Adult: False, Racy: False, Gore: False

# Image Classification & Object Detection

## Image Classification

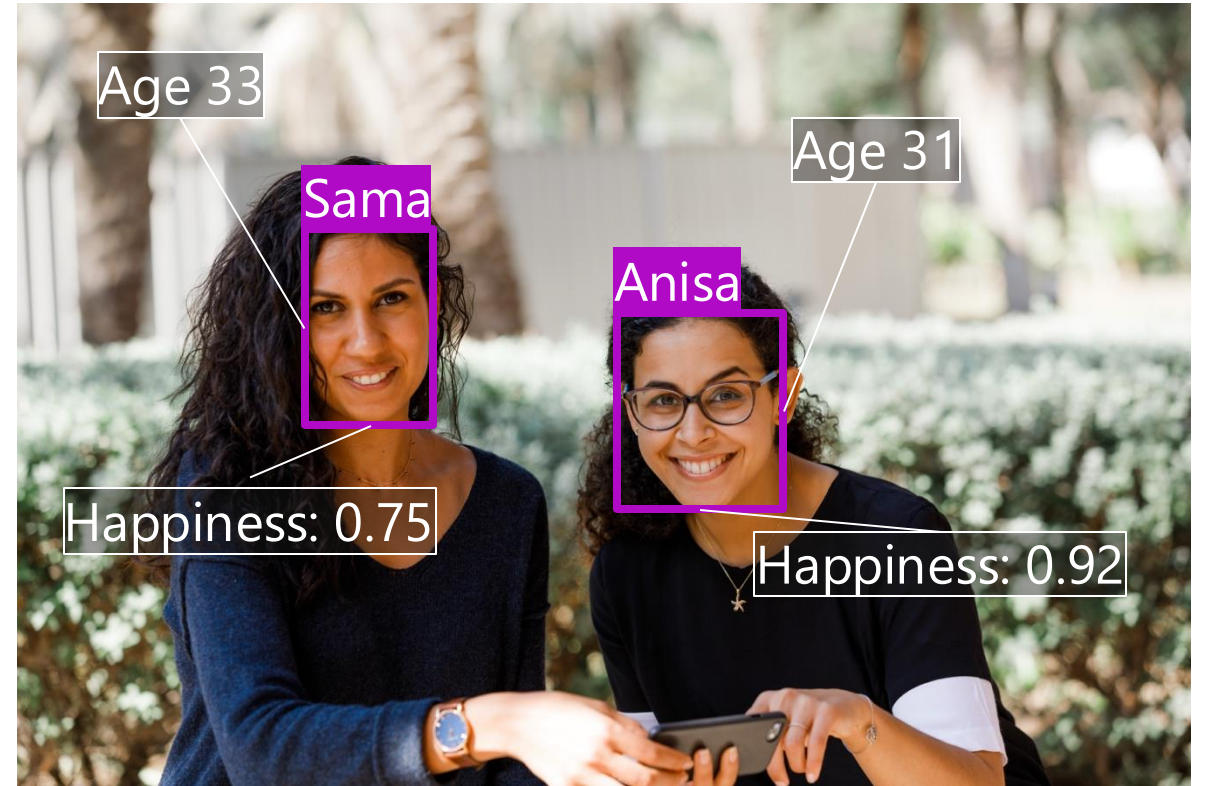


## Object Detection



# Analyzing Faces

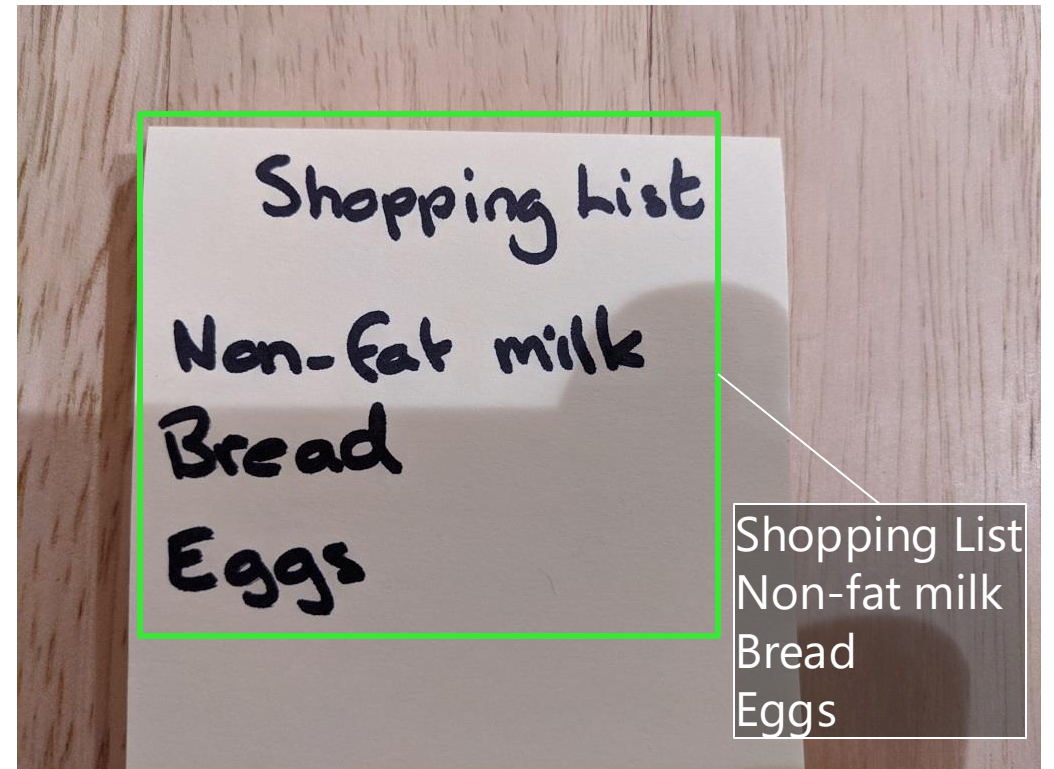
- More facial analysis functionality, including:
  - Facial attributes:
    - Age
    - Emotions
  - Facial recognition:
    - Similarity matching
    - Identity verification





# Reading Text / OCR

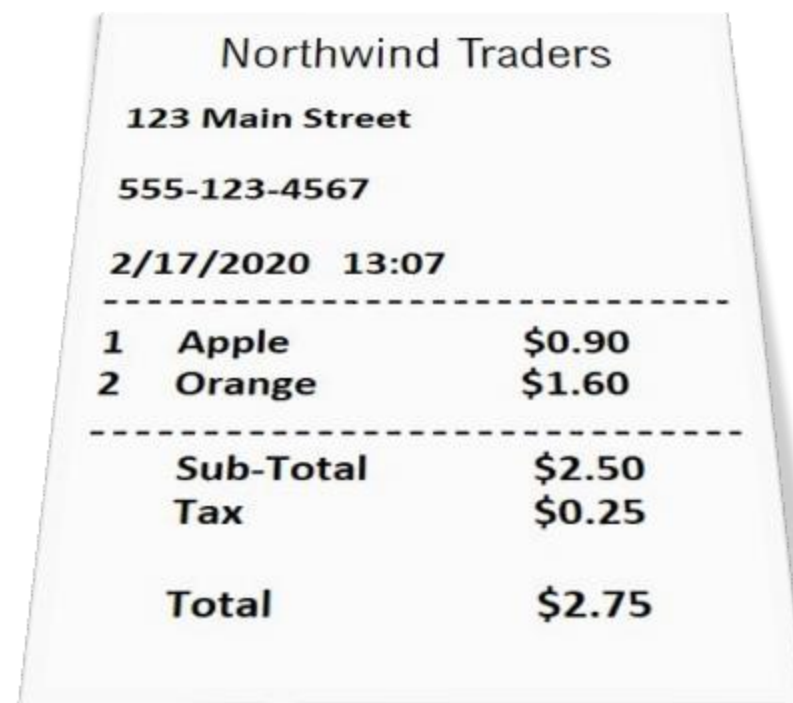
- Detect the location of text:
  - Printed
  - Handwritten
- Options for quick text extraction from images, or asynchronous analysis of larger scanned documents





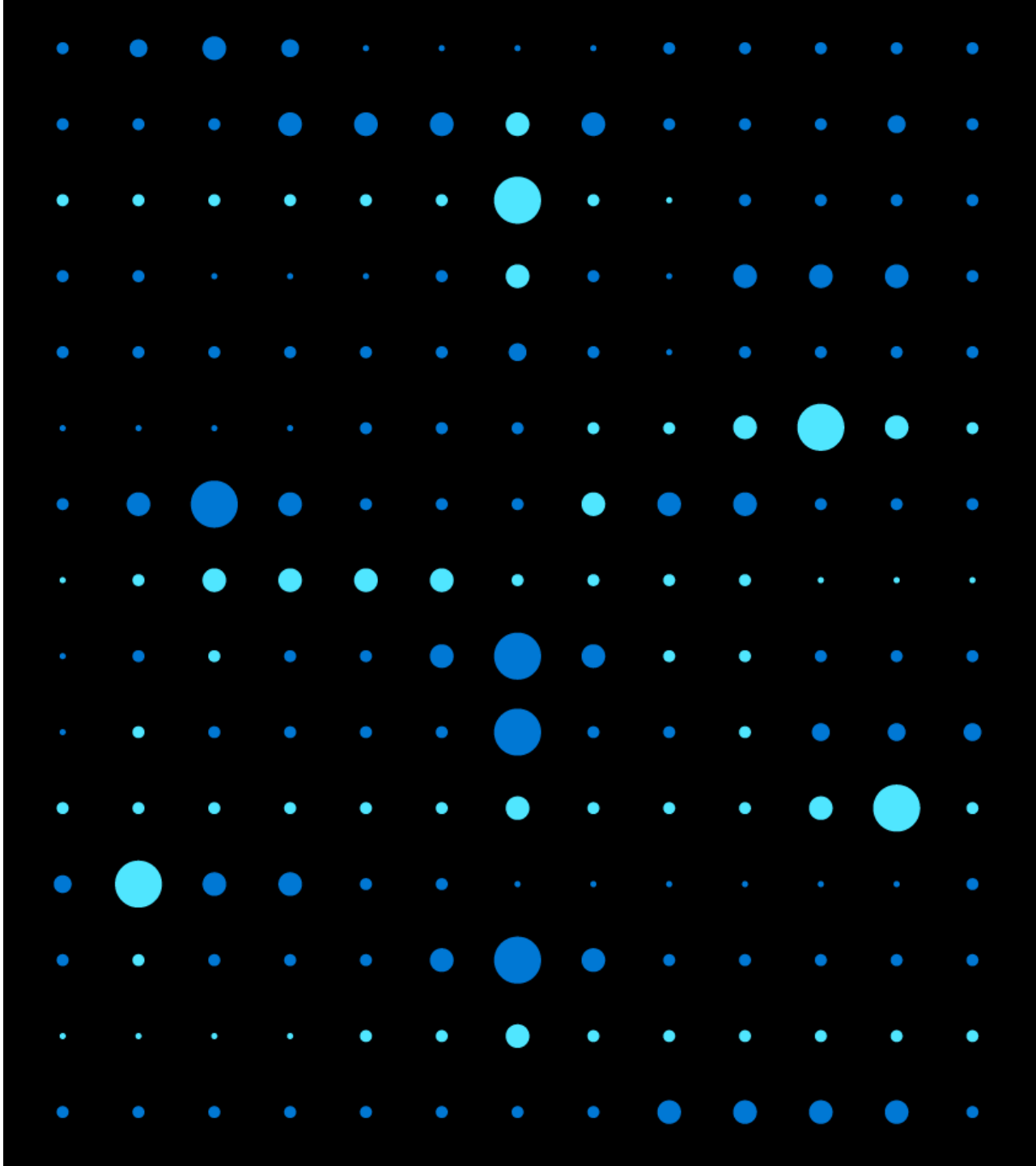
# Analyzing Forms

- Extract information from scanned forms in image or PDF format
  - Train a custom model using your own forms
  - Use the pre-trained receipt model
- Models perform semantic recognition of form fields – not just text extraction

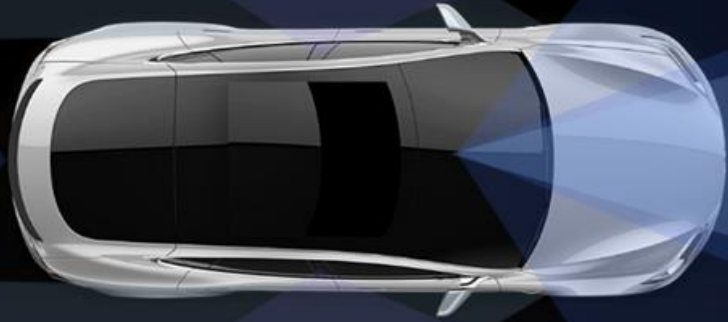


# Demo:

## Computer Vision







## Future of Driving

Tesla cars come standard with advanced hardware capable of providing Autopilot features, and full self-driving capabilities—through software updates designed to improve functionality over time.



<https://www.tesla.com/autopilot>