Object Tracking

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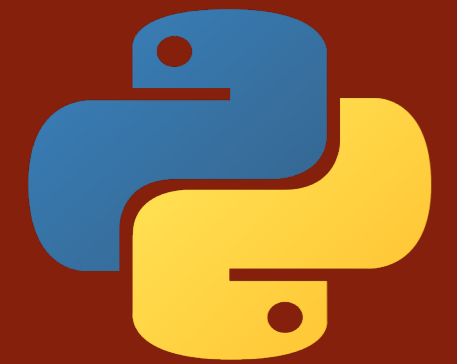
Tracking an Object in a **Video** using **Machine Learning**
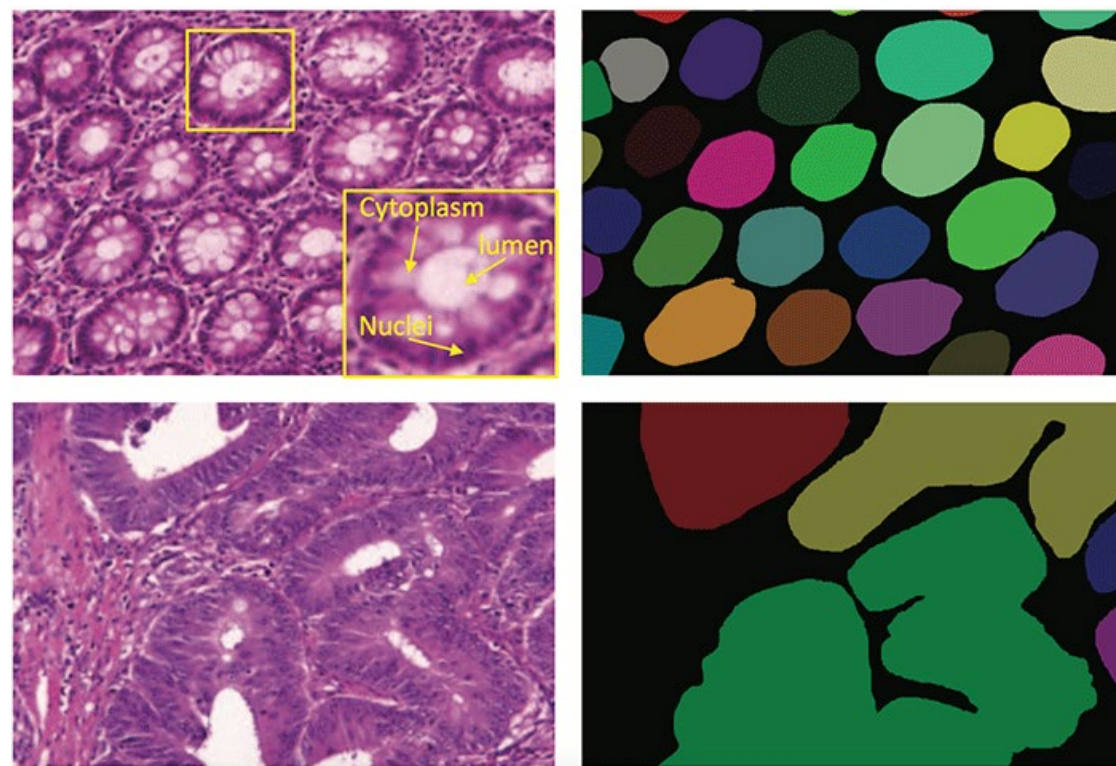
Video Segmentation

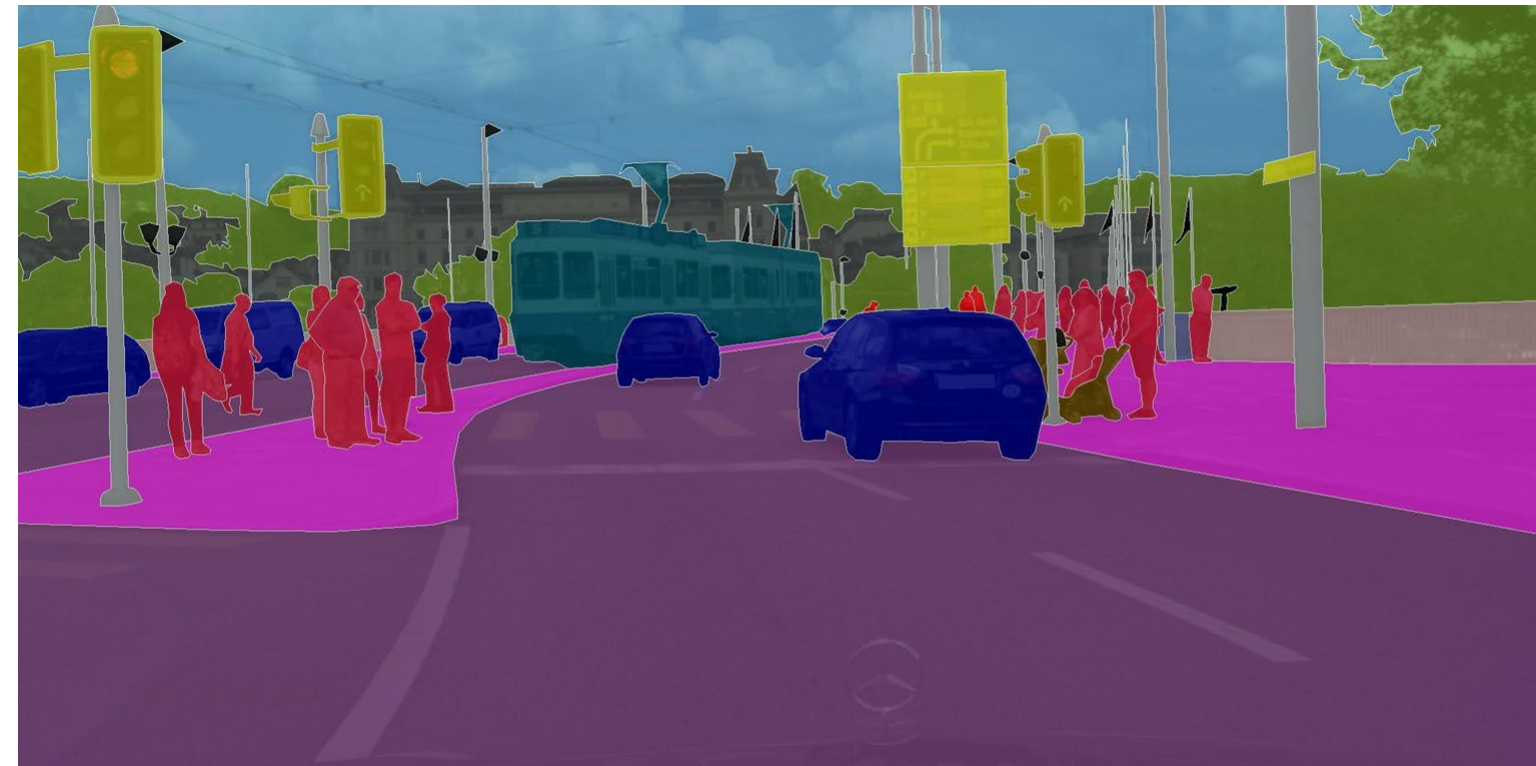**Example Of Image Segmentation and Classification**

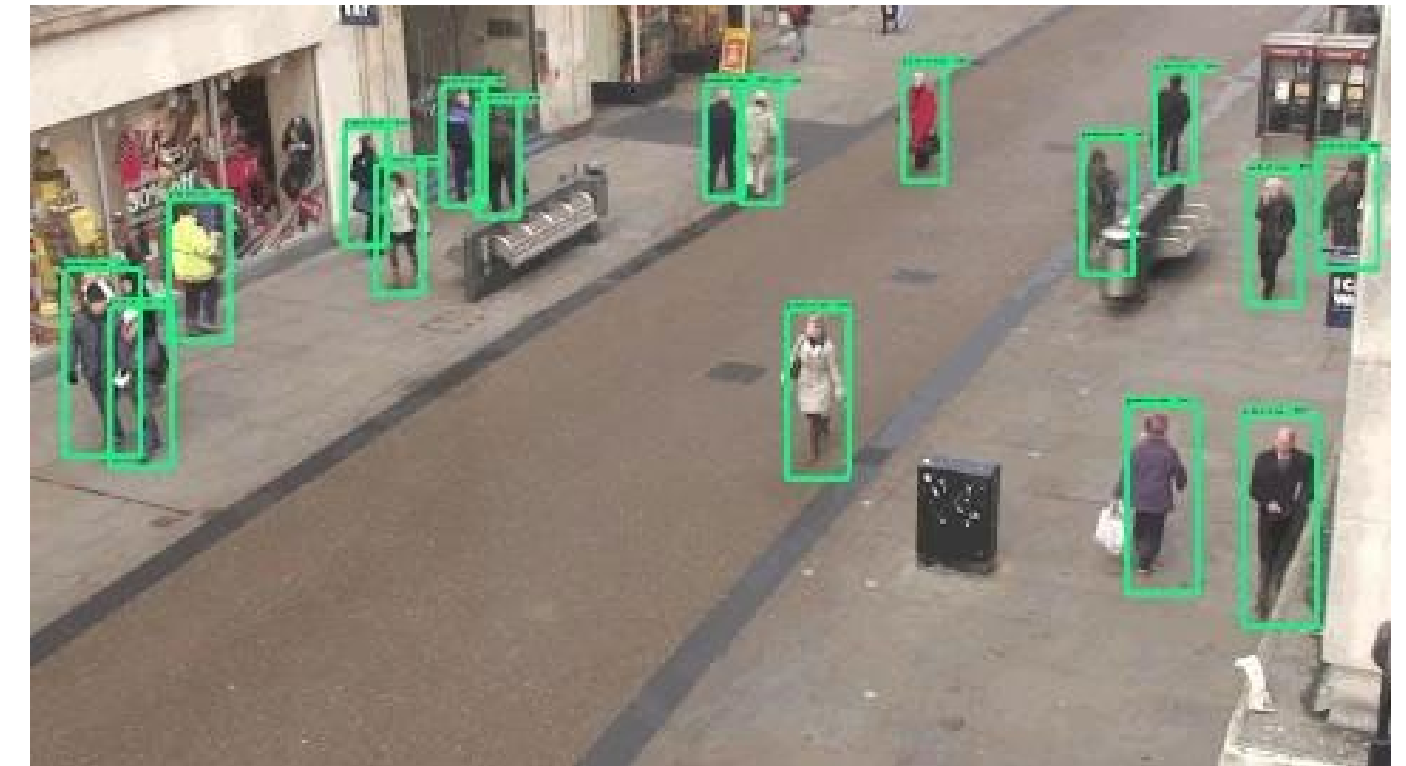**Example Of Video Segmentation and Tracking**

Real-World Uses

Cancer cell identification

Object tracking for self driving cars

Mass surveillance and security

Methodology: Architecture

- **Two input images:** an exemplar (127x127) image centered on target object and larger search image (255x255) containing the target.
- Both inputs are passed to a **shared convolutional neural network** that generates two feature maps.
- By depth-wise cross-correlation, an **object mask** is created as the exemplar slides over the search image.
- We then take the predicted mask and use it to search for the object in the **next frame**