

COMPUTER VISION

INTRODUCTION TO IMAGES

This video lecture focuses on understanding:

AGENDA

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- How image can be used a a data source ?

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- How image can be used a a data source ?
- How many different types images exist ?

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- How image can be used a a data source ?
- How many different types images exist ?
- How to import, read and visualize different images in python ?

1. IMAGE AS A DATA SOURCE

It is rightly said that a picture is equal to thousand words ! Let us understand how an image can be a rich source of information.

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2. TYPES OF IMAGES

A detailed list of existing extensions in which images can be stored and retrieved. How each extension differs from other and scenarios where to use them specifically.

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3. WORKING WITH IMAGES ON PYTHON

A detailed list of existing scripts and techniques to import and read images onto python environment. Hands on understanding on how an image looks on python environment.

1. IMAGE AS DATA SOURCE



What information can be gathered from the above image ?

1. IMAGE AS DATA SOURCE



Tag the area of interest from the above image by putting a
BOUNDING BOX around the object of interest

1. IMAGE AS DATA SOURCE



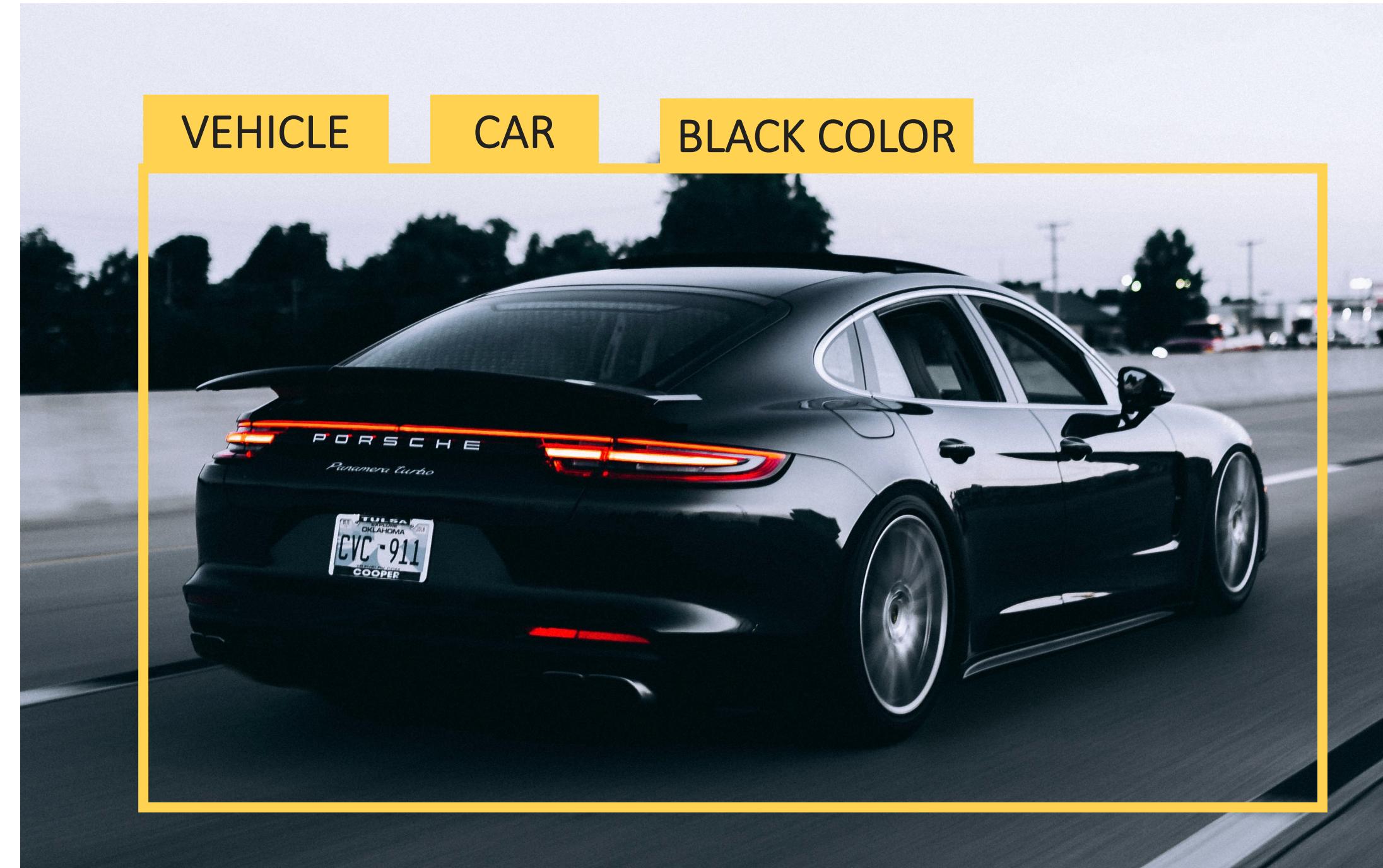
BOUNDING BOX shows that it is a vehicle travelling on the road

1. IMAGE AS DATA SOURCE



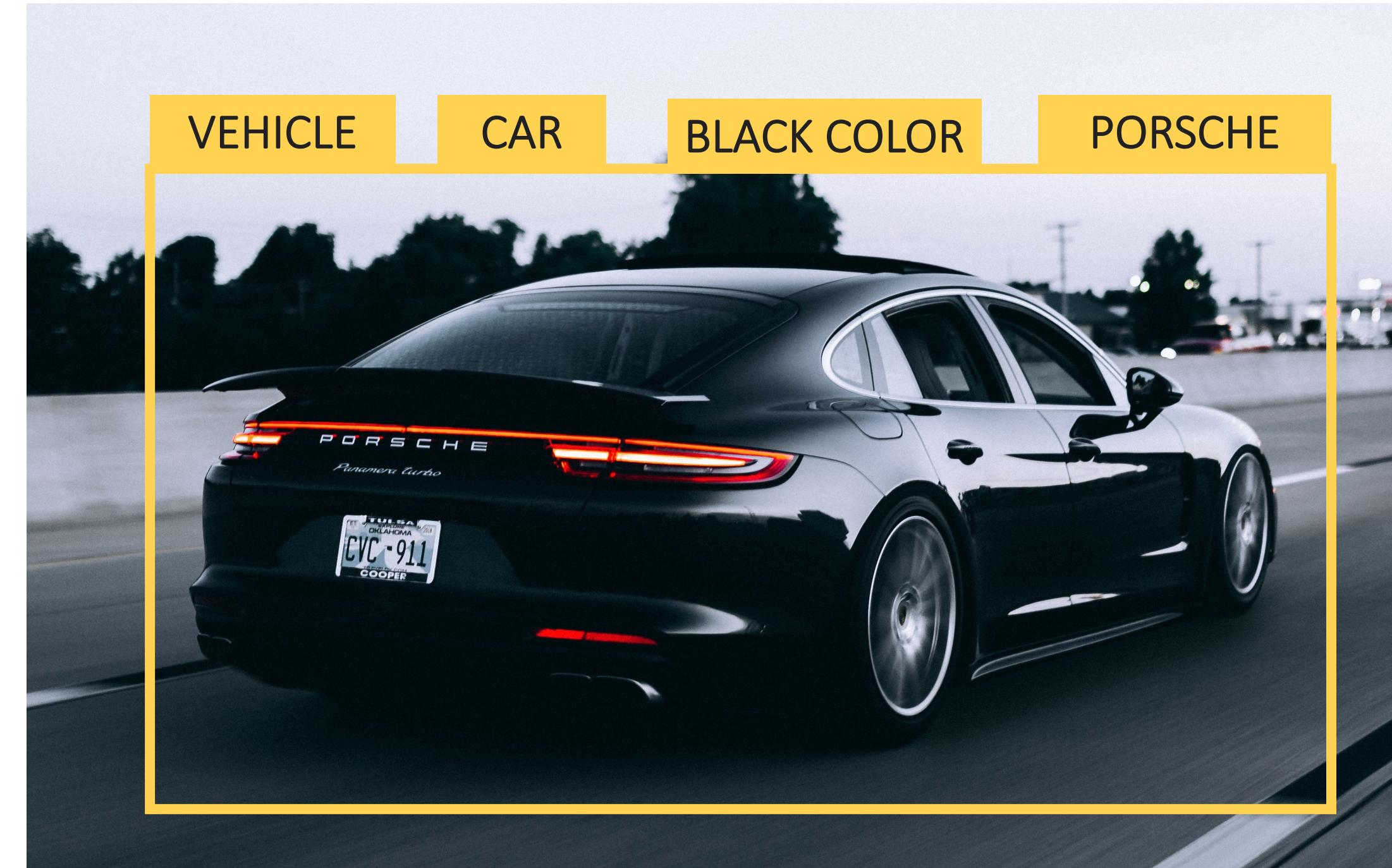
BOUNDING BOX shows that it is a vehicle travelling on the road is a car

1. IMAGE AS DATA SOURCE



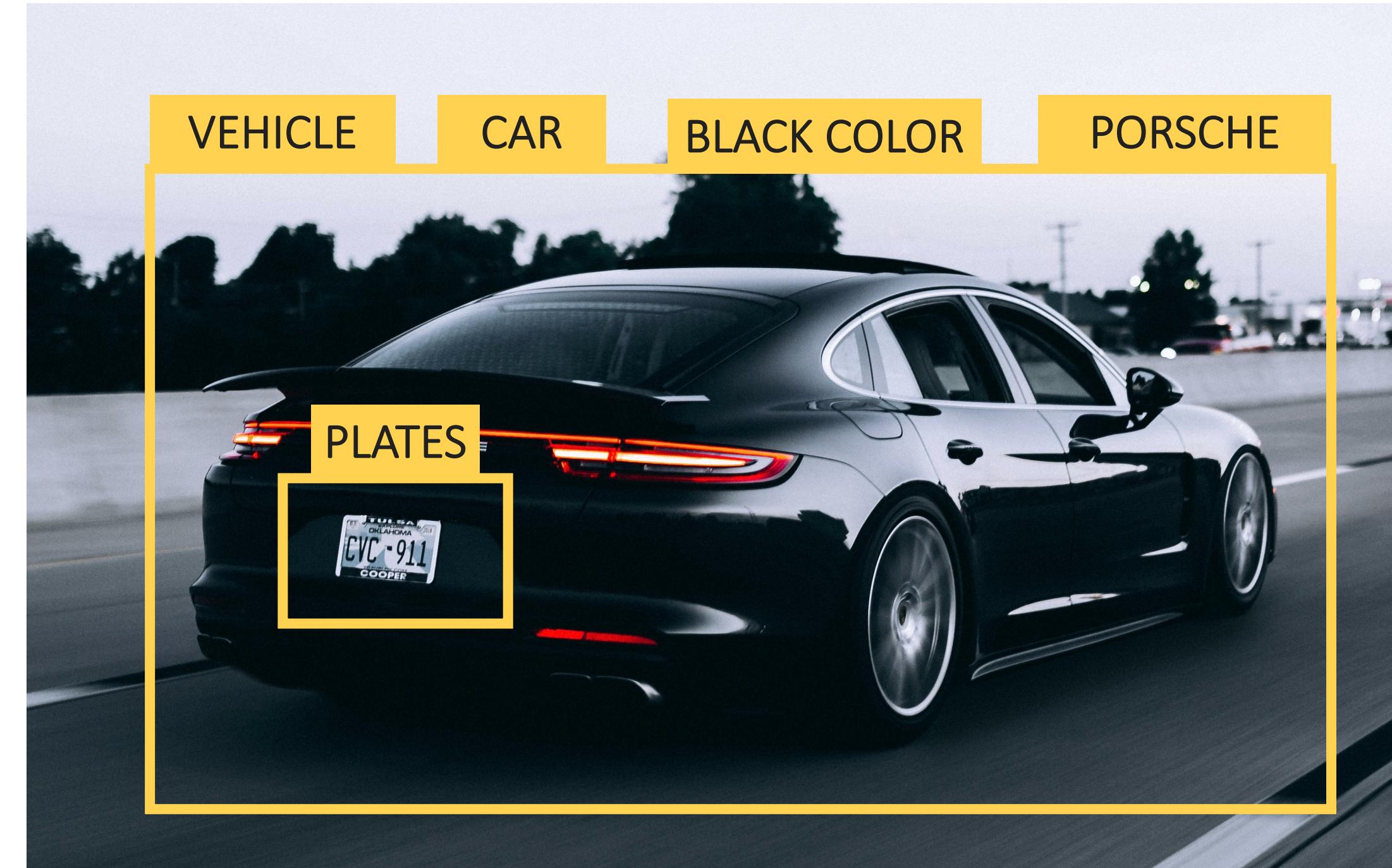
BOUNDING BOX shows that it is a vehicle travelling on the road is a car is of black color

1. IMAGE AS DATA SOURCE



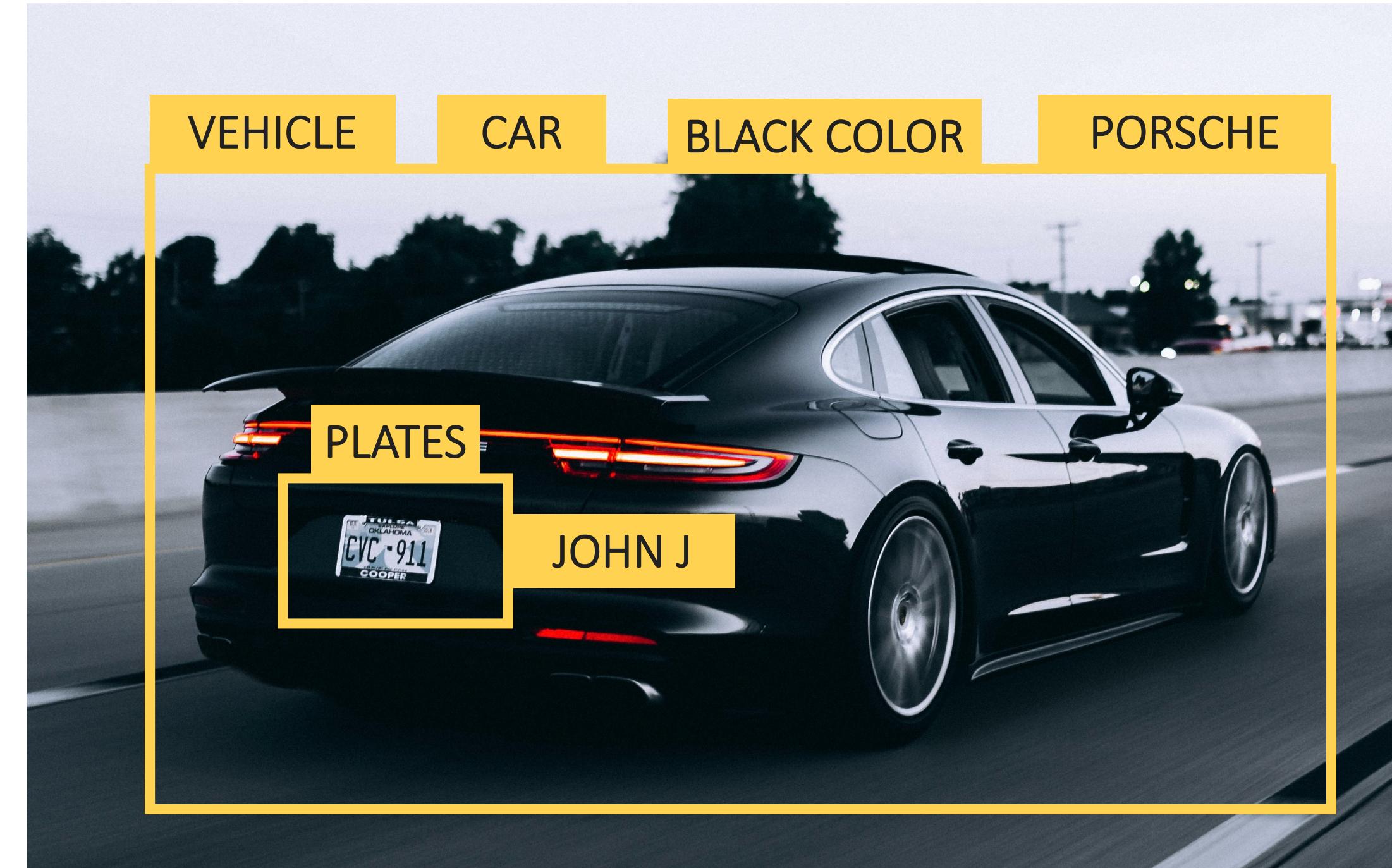
BOUNDING BOX shows that it is a vehicle travelling on the road is a car is of black color which is a Porsche

1. IMAGE AS DATA SOURCE



BOUNDING BOX shows that it is a vehicle travelling on the road is a car is of black color which is a Porsche registered with number CVC – 911

1. IMAGE AS DATA SOURCE



BOUNDING BOX shows that it is a vehicle travelling on the road is a car is of black color which is a Porsche registered with number CVC – 911 which is owned by John J

2. TYPES OF IMAGES

Following are the most common and popular image extensions:

1. **JPG or JPEG**: Joint Photographic Experts Group
2. **PNG**: Portable Network Graphics
3. **TIFF**: Tagged Image File Format
4. **DICOM**: Digital Imaging and Communications in Medicine
5. **GIF**: Graphics Interchange Format
6. **BMP**: Bit Map Image
7. **ICO**: Icon
8. **EXIF**: Exchange Image File
9. **PDF**: Portable Document Format
10. **HEIF/HEIC**: High Efficiency Image File Format

SUMMARY

“A picture is worth thousand words”

In the world where data is the new oil, images can be used as a rich source of information and can be used to solve many real-time business problems.

3. WORKING WITH IMAGES ON PYTHON



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