OPENCV

AI CLUB

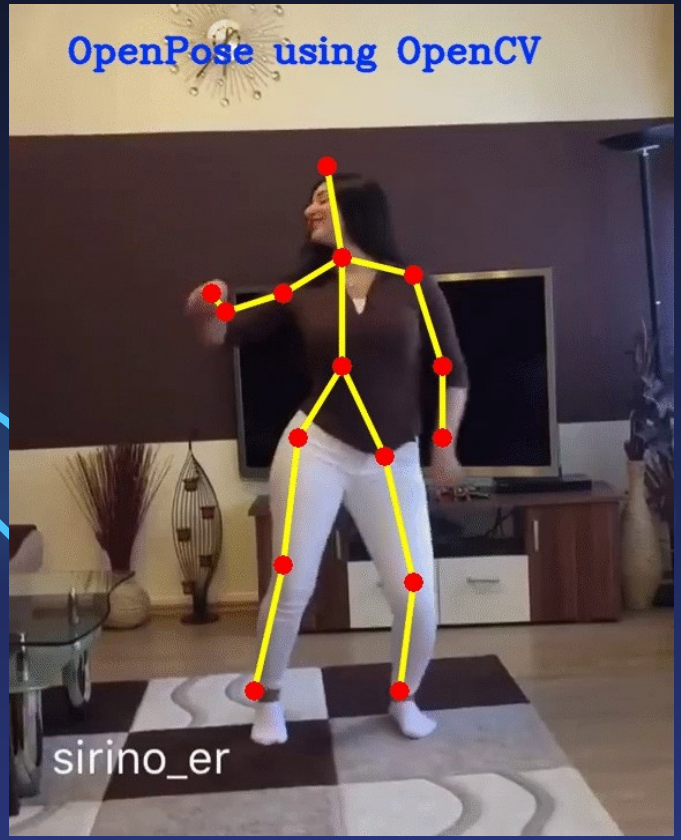
Intro to Computer Vision

01

OPENCV

INTRODUCTION

- OpenCV (Open Source Computer Vision Library) is an open source computer vision and machine learning software library
- It can be used to perform tasks like face detection, objection tracking, landmark detection, and much more
- It supports multiple languages including python, java, C++



WHY IS OPENCV RELEVANT TO AI?

PROCESSING

When working with images in AI, there is a need to perform data cleaning using image manipulation skills

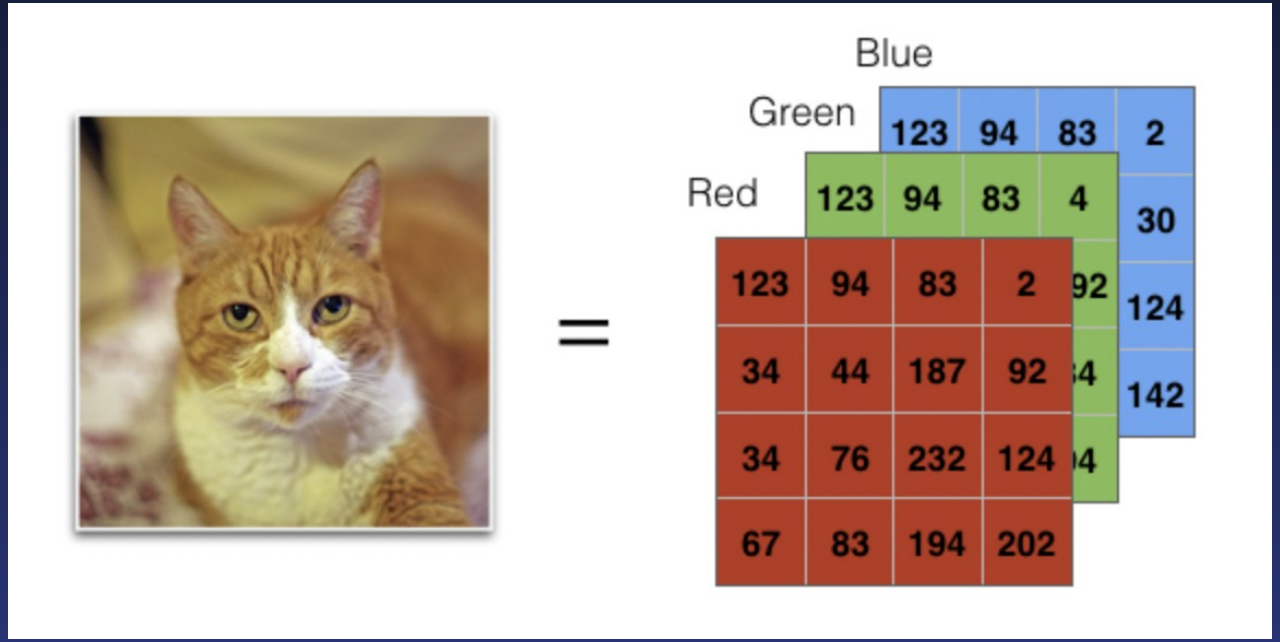
VISION

Computer Vision is an important branch of AI and deals with using images in various AI and ML applications

02

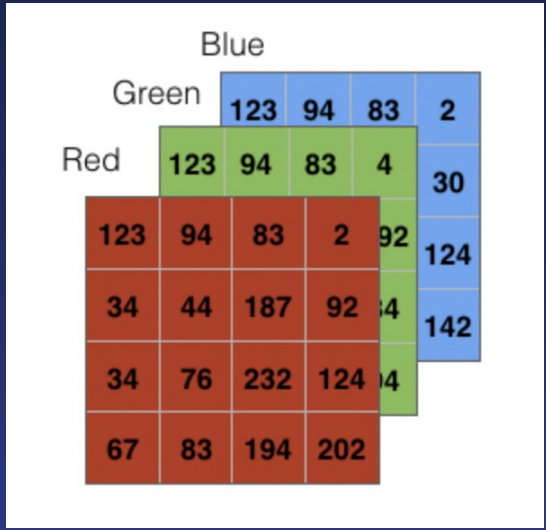
Image Representation

How OpenCV stores images



How OpenCV stores images

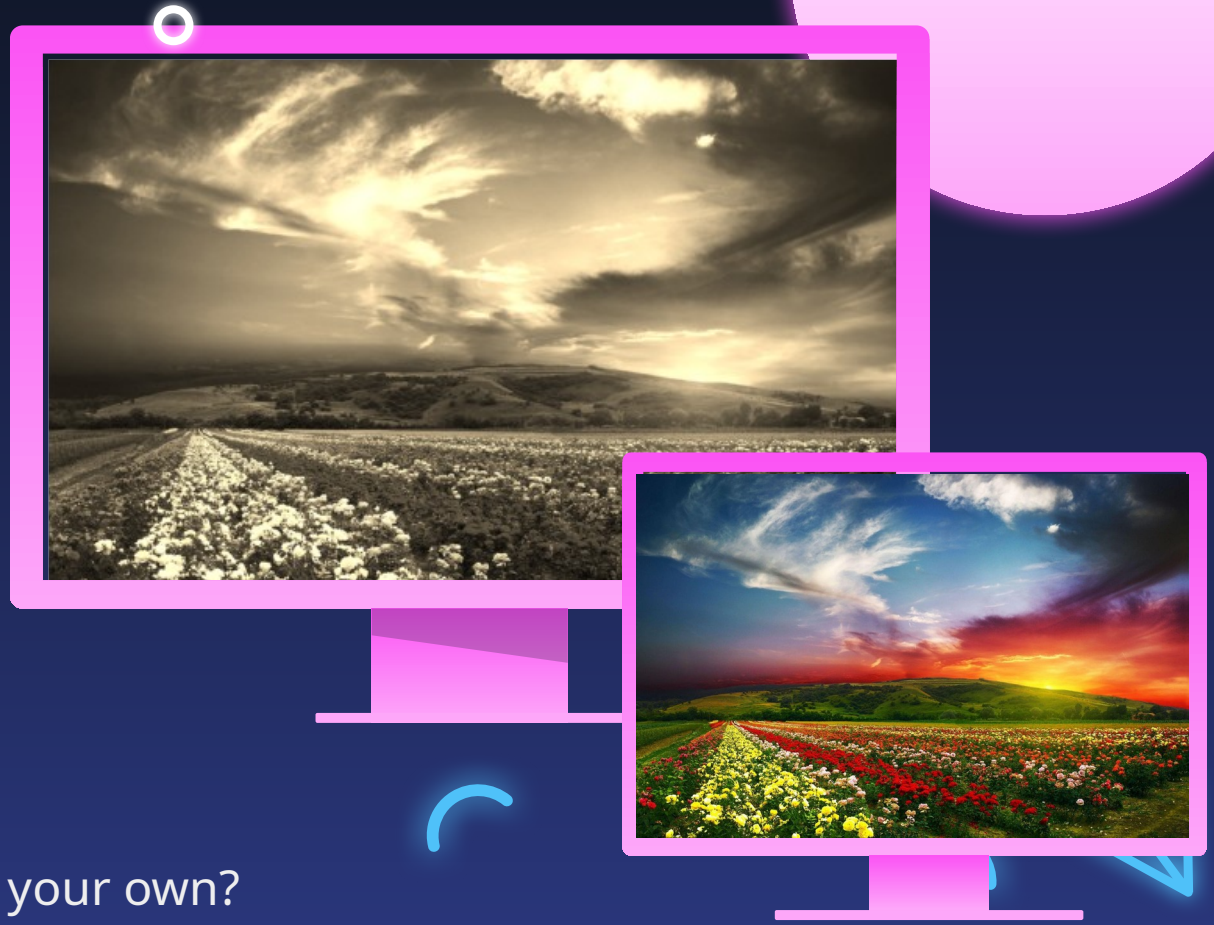
- We need three numbers to represent the color of a single pixel.
  (Red, green, and blue are the primary colors on a computer screen.)
- There are (height × width) pixels in an image
- So we store each image as a (height × width × 3 channel) block of numbers
- Example Shape: (2560, 1920, 3)
  - 2560 rows (height) × 1920 columns (width) × 3 color channels



FILTER CONTEST

Try out your soon-to-be learnt image manipulation skills in OpenCV and use your creativity to create fun filters!!

EXAMPLE FILTER



Are you excited to make your own?

TOP 3 FILTERS WILL BE SELECTED

- Newsletter feature
- Bragging rights