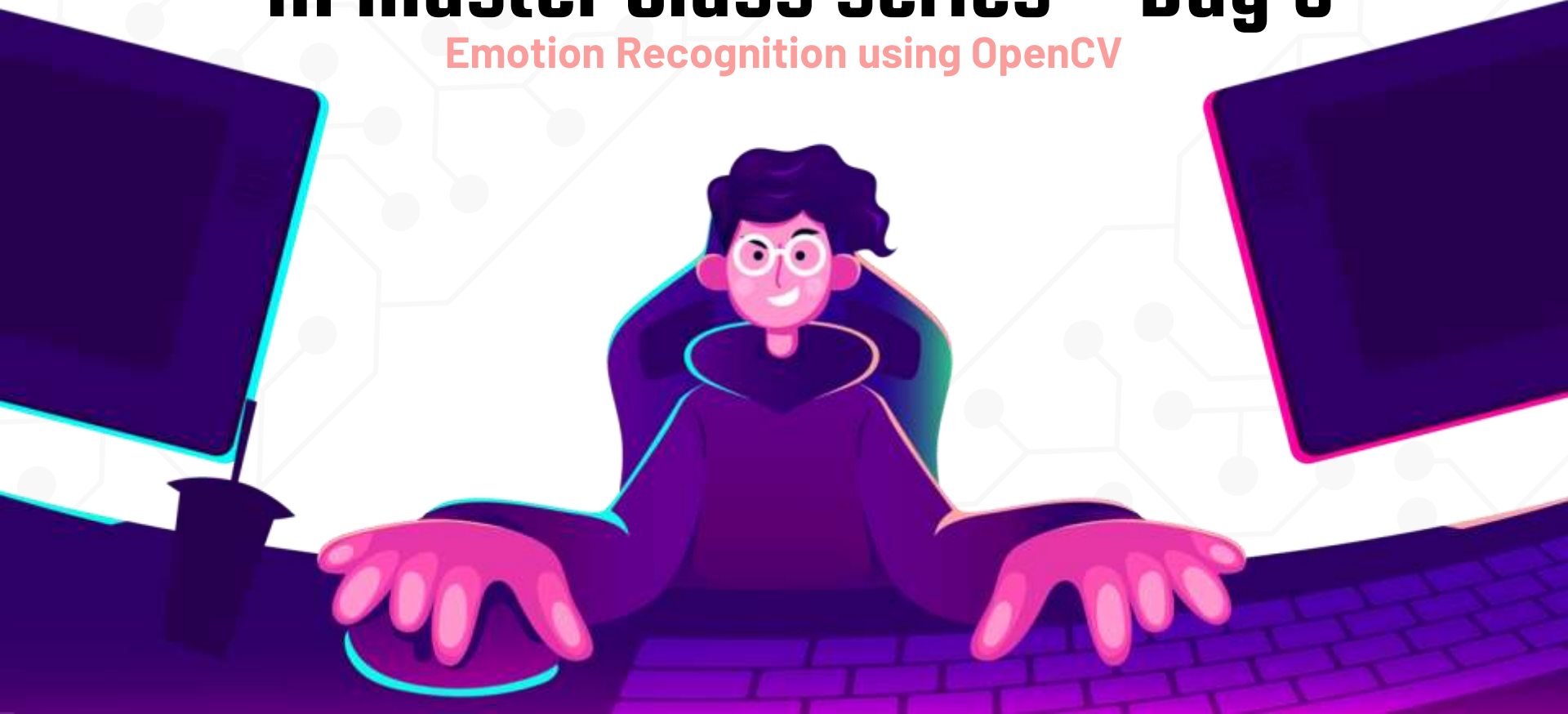




AI Master Class series – Day 8

Emotion Recognition using OpenCV



Day-8 Agenda.

01.

Face emotion recognition

Face emotion recognition & its application

02.

Overview on Libraries used

Face recognition library

03.

Face emotion recognition

Real-time face emotion recognition



Installing Libraries



pytorch: `pip3 install --find-links`

`https://download.pytorch.org/whl/torch_stable.html`

`torch==1.3.1 torchvision==0.4.2`

```
C:\Windows\system32>pip install --find-links https://download.pytorch.org/whl/torch_stable.html torch==1.3.1 torchvision==0.4.2
Looking in links: https://download.pytorch.org/whl/torch_stable.html
Collecting torch==1.3.1
  Downloading https://download.pytorch.org/whl/cu92/torch-1.3.1%2Bcu92-cp37-cp37m-win_amd64.whl (644.4 MB)
    | 644.4 MB 3.5 kB/s
Collecting torchvision==0.4.2
  Downloading https://download.pytorch.org/whl/cu92/torchvision-0.4.2%2Bcu92-cp37-cp37m-win_amd64.whl (1.1 MB)
    | 1.1 MB 145 kB/s
Requirement already satisfied: numpy in c:\program files (x86)\microsoft visual studio\shared\python37_64\lib\site-packages (from torch==1.3.1) (1.18.5)
Requirement already satisfied: pillow>=4.1.1 in c:\program files (x86)\microsoft visual studio\shared\python37_64\lib\site-packages (from torchvision==0.4.2) (7.2.0)
Requirement already satisfied: six in c:\program files (x86)\microsoft visual studio\shared\python37_64\lib\site-packages (from torchvision==0.4.2) (1.15.0)
Installing collected packages: torch, torchvision
Successfully installed torch-1.3.1+cu92 torchvision-0.4.2+cu92
```



Installing Libraries



Facial Emotion recognition: pip install facial-emotion-recognition

```
Successfully built facial-emotion-recognition  
Installing collected packages: facenet-pytorch, facial-emotion-recognition  
Successfully installed facenet-pytorch-2.5.0 facial-emotion-recognition-0.3.3
```



Configuring Torch for CPU



`./site-package/torch/serialization.py`

Change:

def load(f, map_location=None, pickle_module=pickle, **pickle_load_args):

to

def load(f, map_location='cpu', pickle_module=pickle, **pickle_load_args):


Face emotion recognition.

Facial emotion recognition is the process of detecting human emotions from facial expressions. The human brain recognizes emotions automatically, and software has now been developed that can recognize emotions

AI can detect emotions by learning what each facial expression means and applying that knowledge to the new information presented to it. Emotional artificial intelligence, or emotion AI, is a technology that is capable of reading, imitating, interpreting, and responding to human facial expressions and emotions.

Practical session





Face Emotion Recognition


```
from facial_emotion_recognition import EmotionRecognition  
import cv2
```

```
emRec = EmotionRecognition(device='cpu')  
cam = cv2.VideoCapture(0)
```

```
while True:  
    success, frame = cam.read()  
    frame = emRec.recognise_emotion(frame, return_type='BGR')  
    cv.imshow('frame', frame)  
    key = cv2.waitKey(1)  
    if key == 27:  
        break
```

```
cam.release()  
cv2.destroyAllWindows()
```

AI News — Day 8.

Sept - 2020

Google returns to using human YouTube moderators after AI errors

- Google is returning to using humans for YouTube moderation after repeated errors with its AI system.
- Moderating a large network like YouTube is no easy task. Aside from the sheer volume of content uploaded every day, moderators are subjected to the worst of humanity and often end up





Thanks!

Do you have any questions?
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Tomorrow session

**Introduction to Deep Learning | How to
install DL Libraries**

