Course Projects

Computer Vision 23/24

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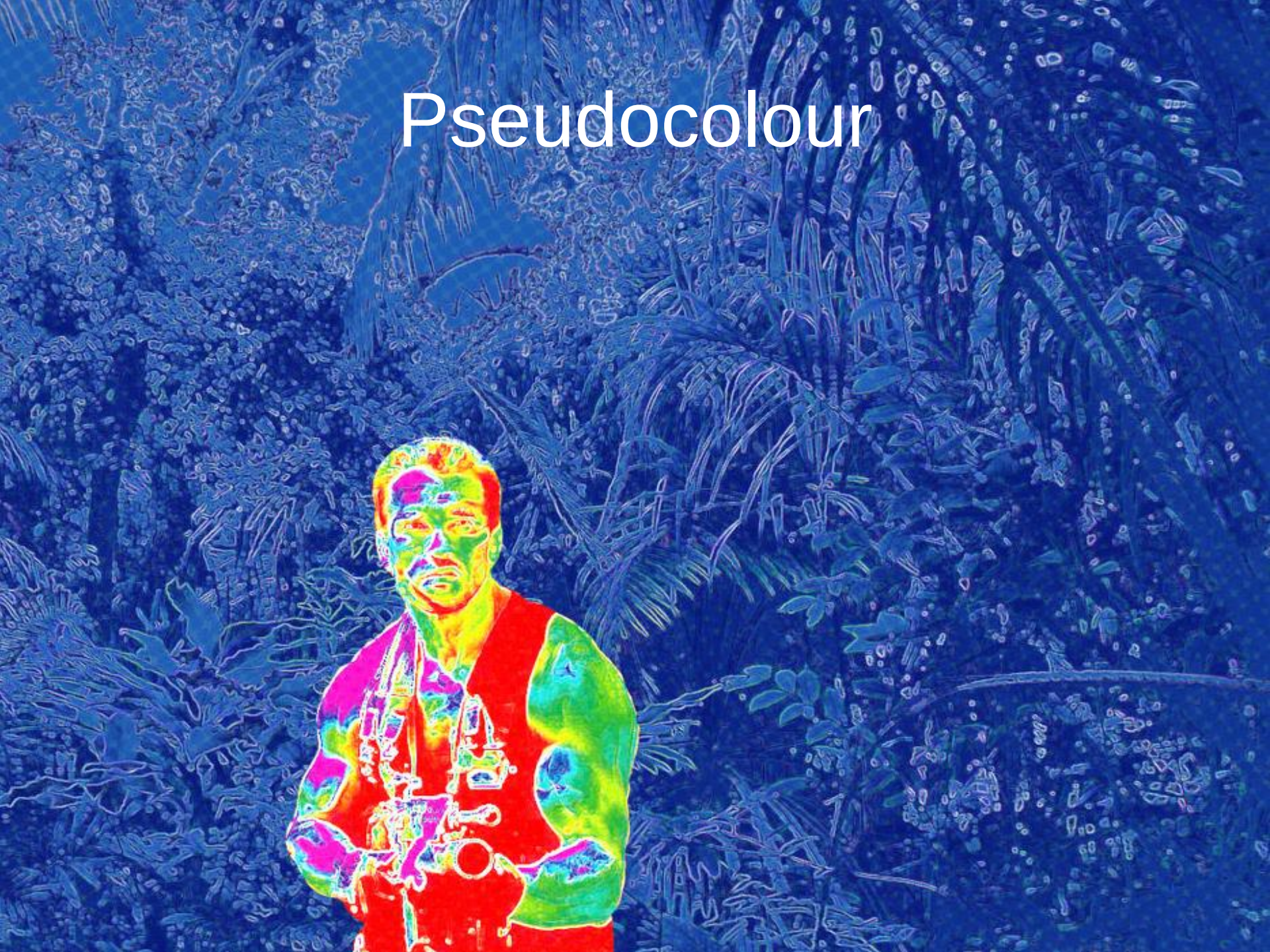
U.PORTO FC

Stuff we can do

Pseudocolour




Colour Slicing

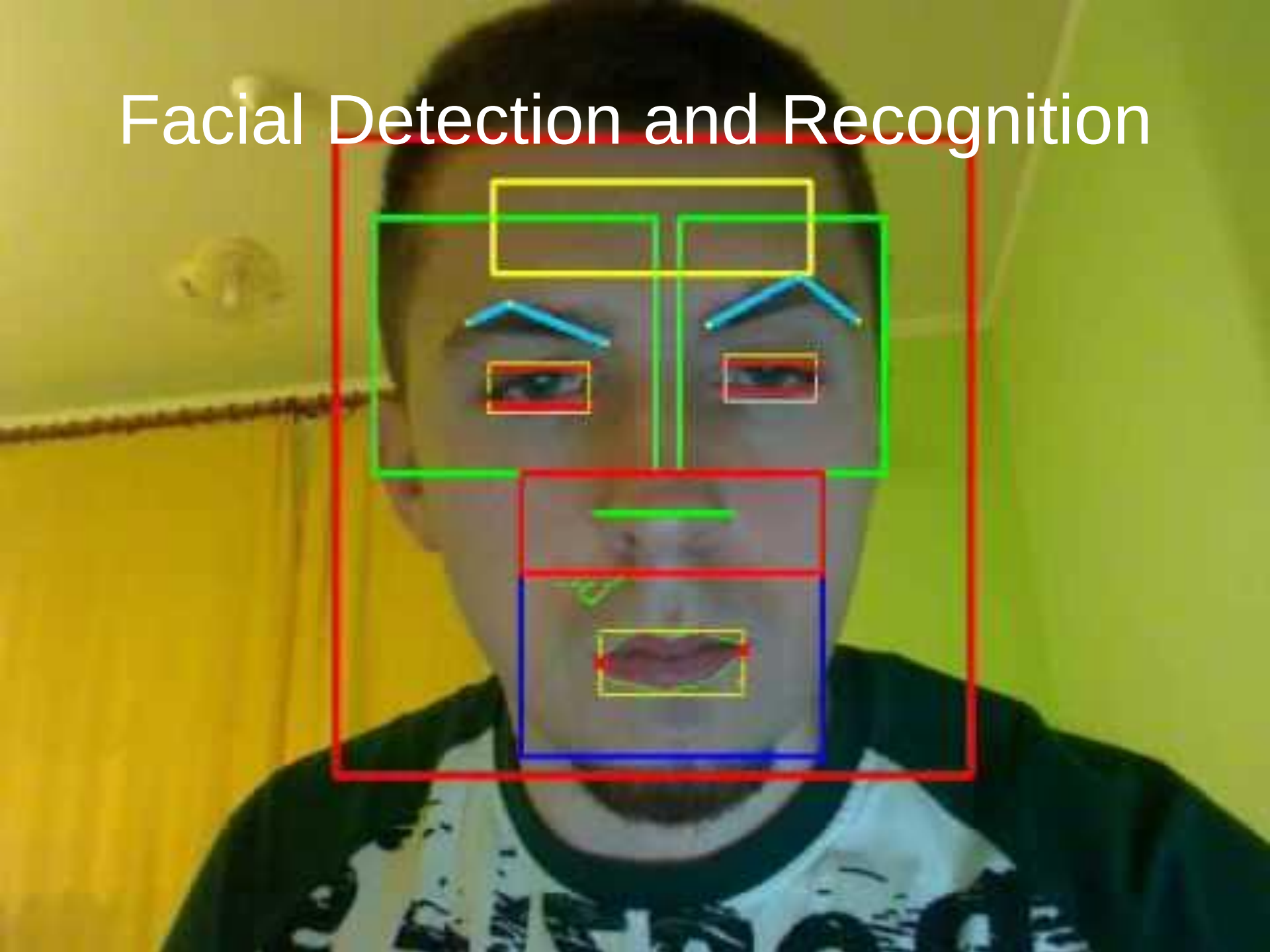
Chroma Key


Colour Edge Detectors

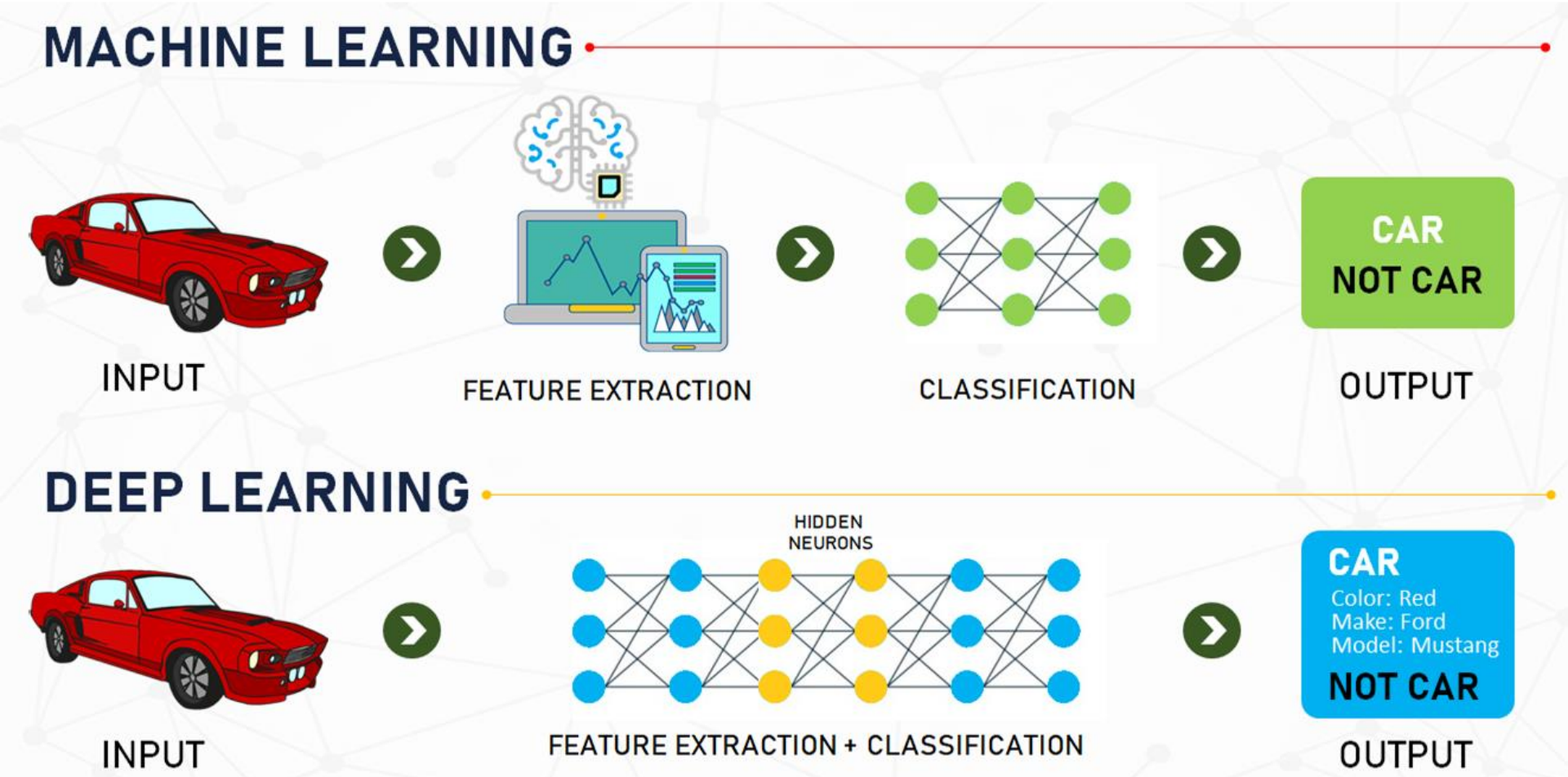

Motion Quantification


Mosaicing

Facial Detection and Recognition



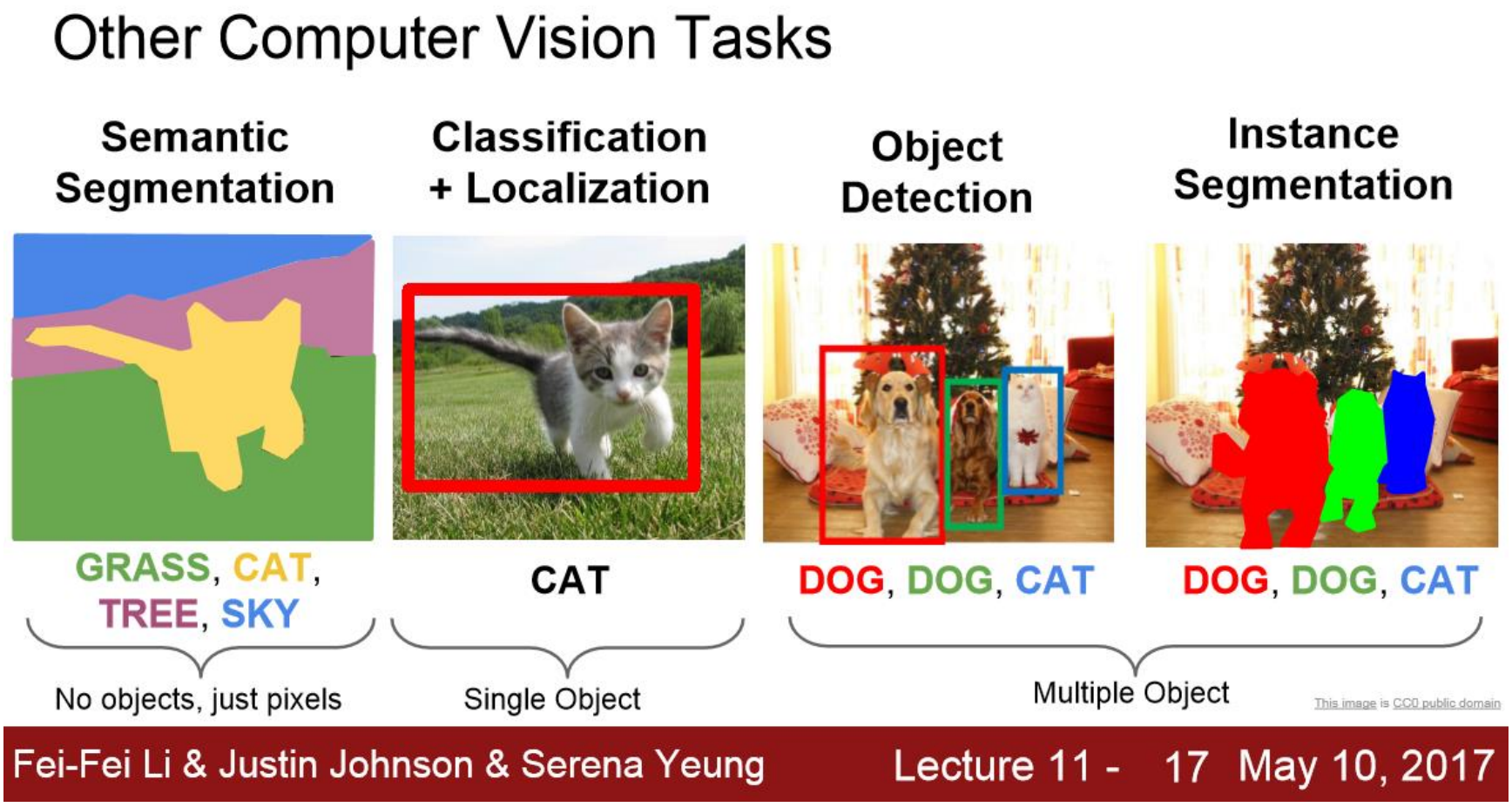
Deep Learning Ford Mustang Classifiers



DLT LABS


BOSS
302

Segment Cats & Dogs

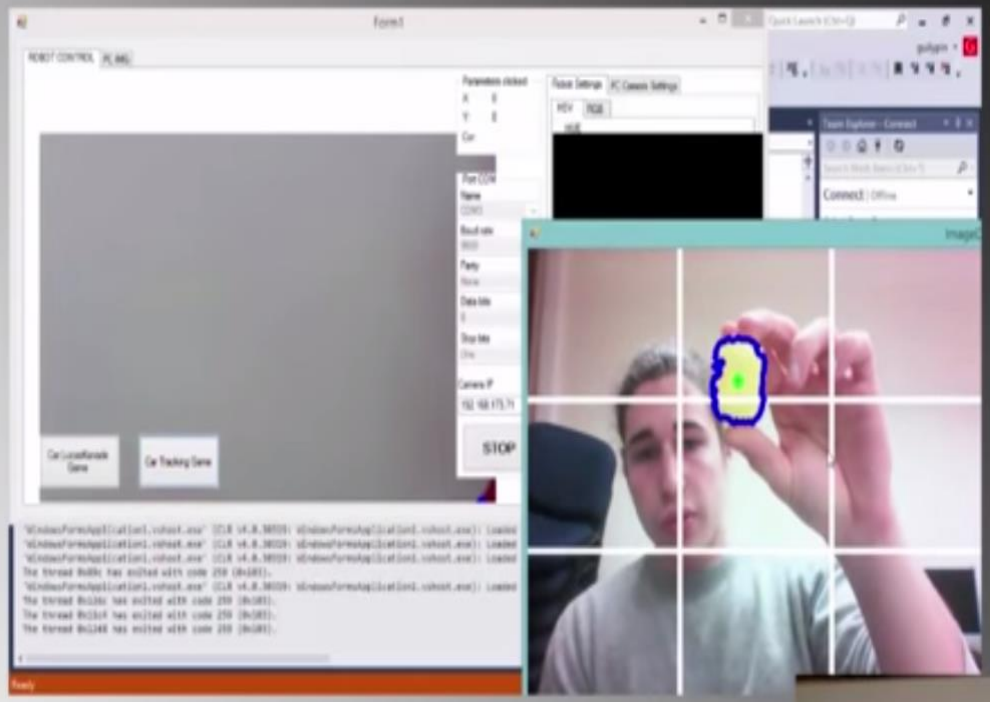


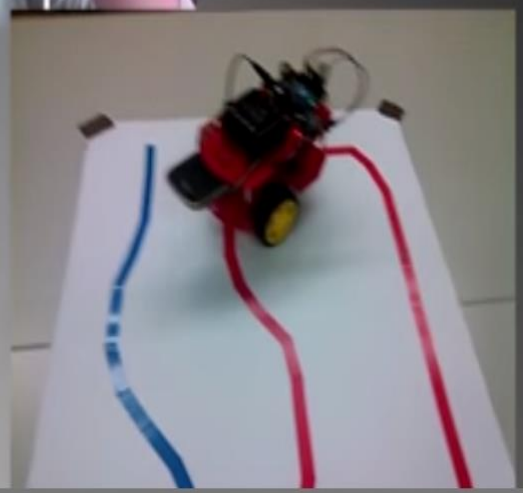
Source http://cs231n.stanford.edu/slides/2017/cs231n_2017_lecture11.pdf


Generate AI Images

Stuff your colleagues did

Demonstration: Self-Driving Robot






Faculdade de Ciências desenvolve projeto de Xadrez Robótico
https://www.youtube.com/watch?v=csuS2ibPVtU
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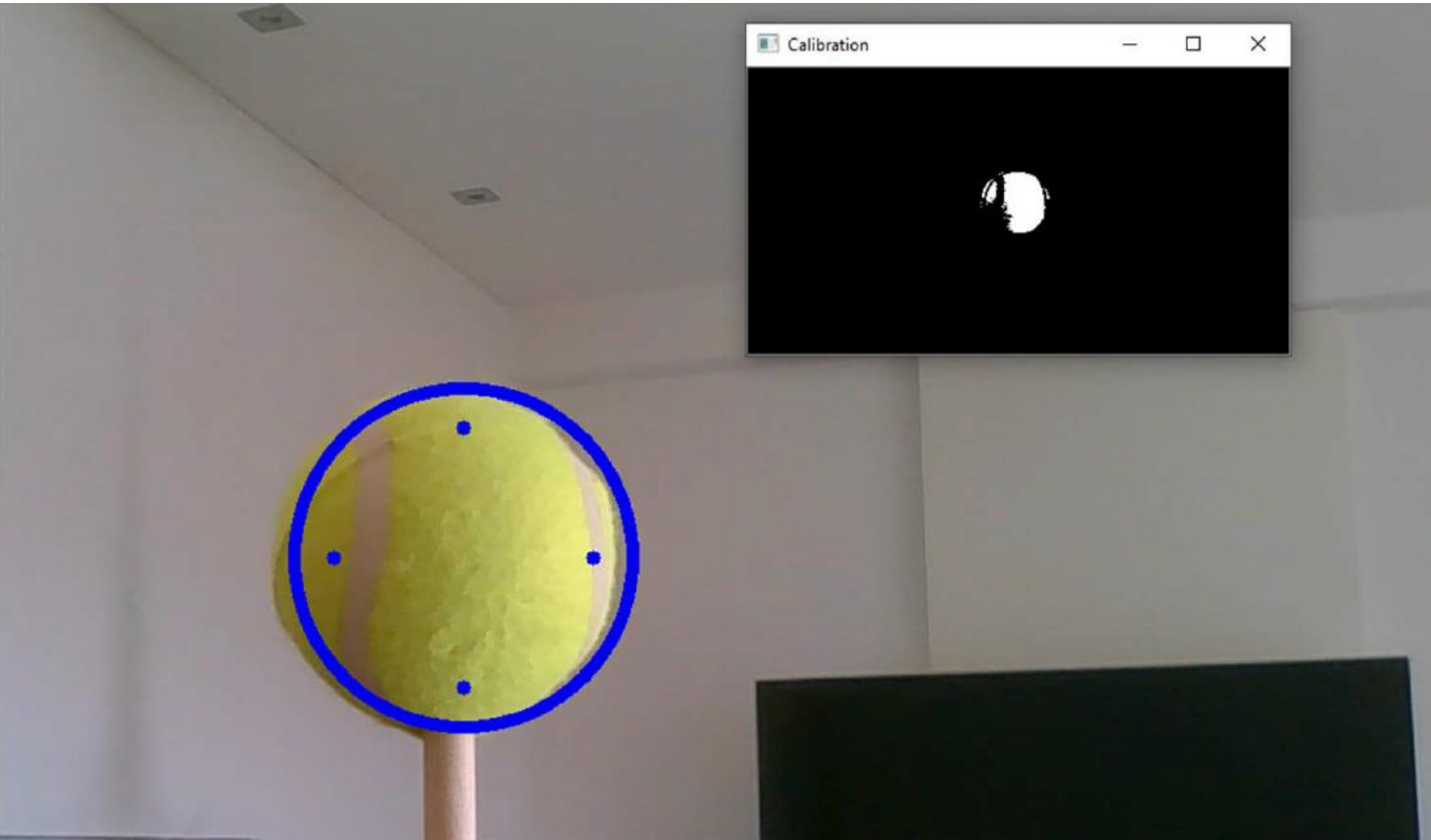
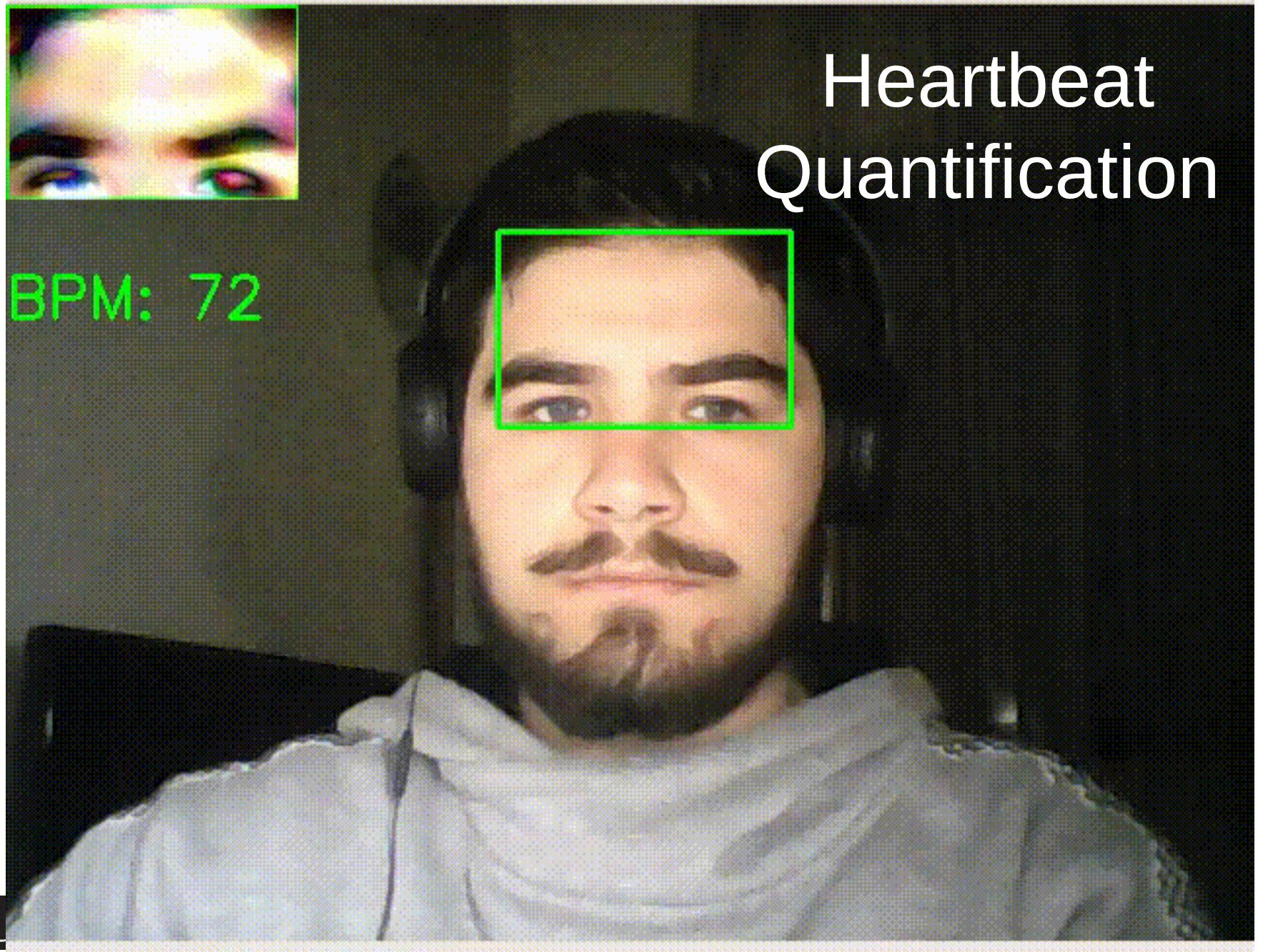
1:55 / 2:51

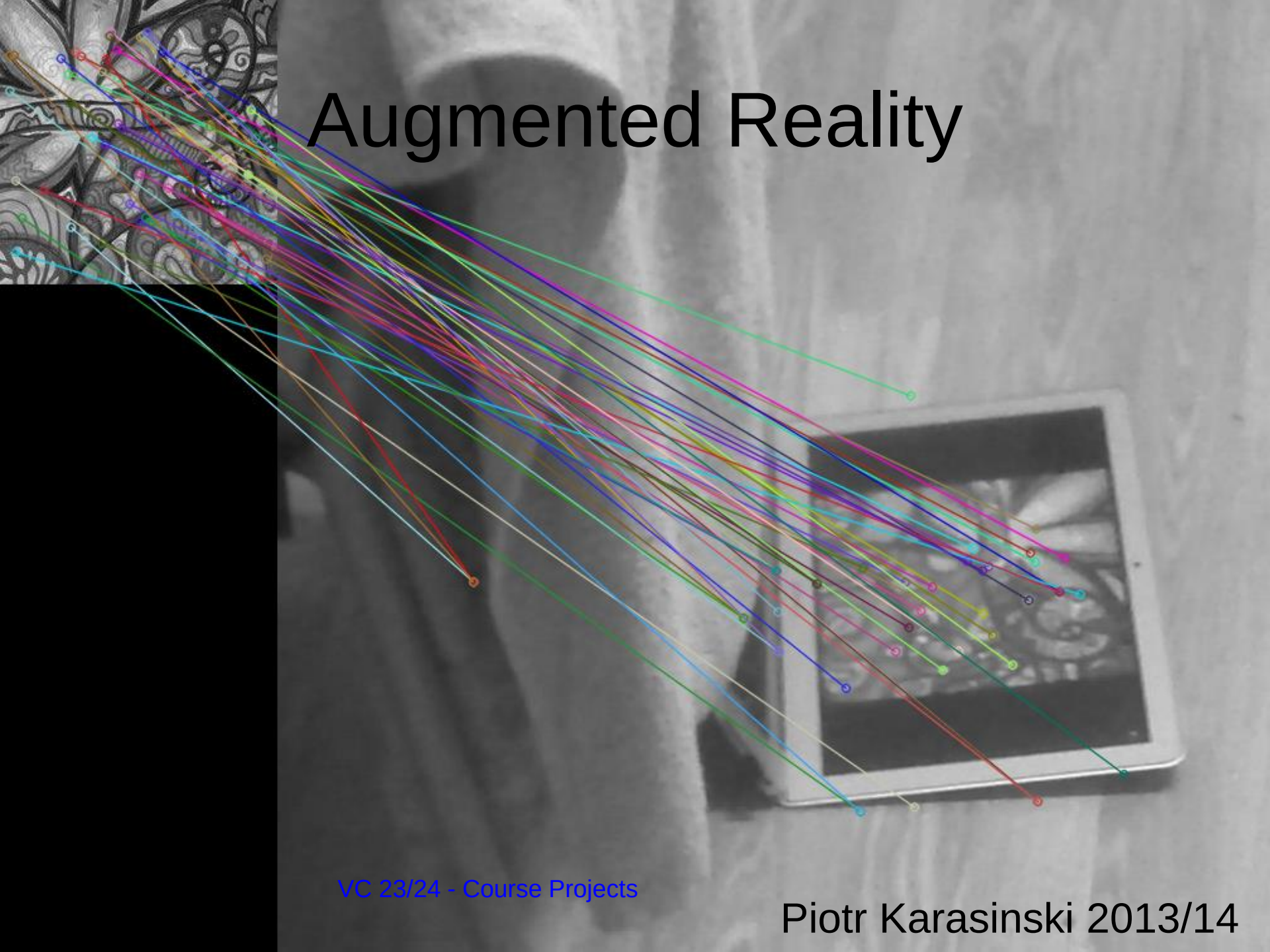
Bubble Game



Gesture Recognition

Imagens de teste	Segmentação da imagem	Resultado/Tradução
		Corresponde -> Y
		Várias traduções se assemelham, nomeadamente: |-> Y |-> O |-> U |-> 5 |-> 5 |-> 4 |-> 3 |-> 2
		Corresponde -> O


Heartbeat
Quantification
BPM: 72
(x=331,y=407) ~ R:207 G:197 B:202


Augmented Reality
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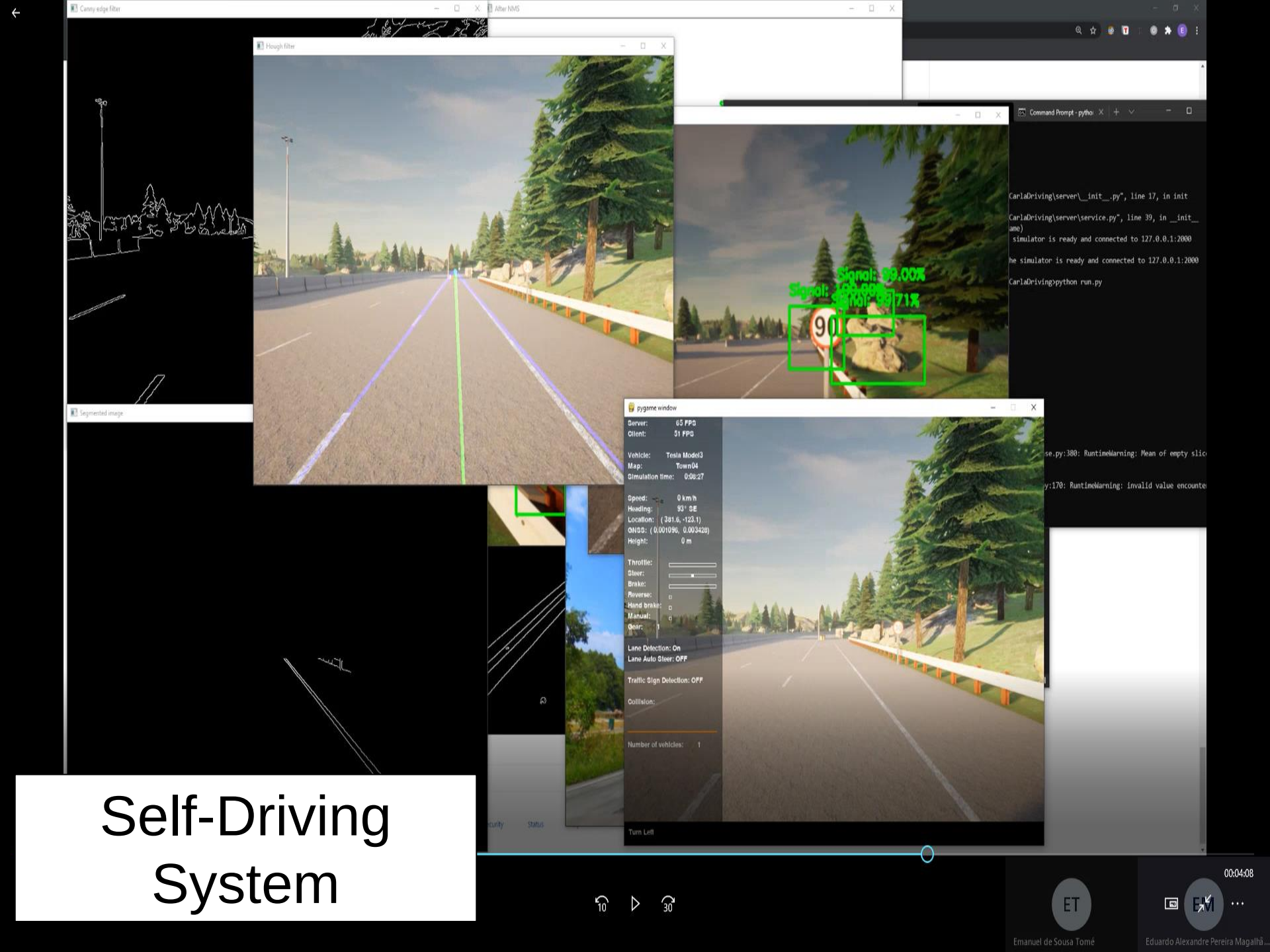
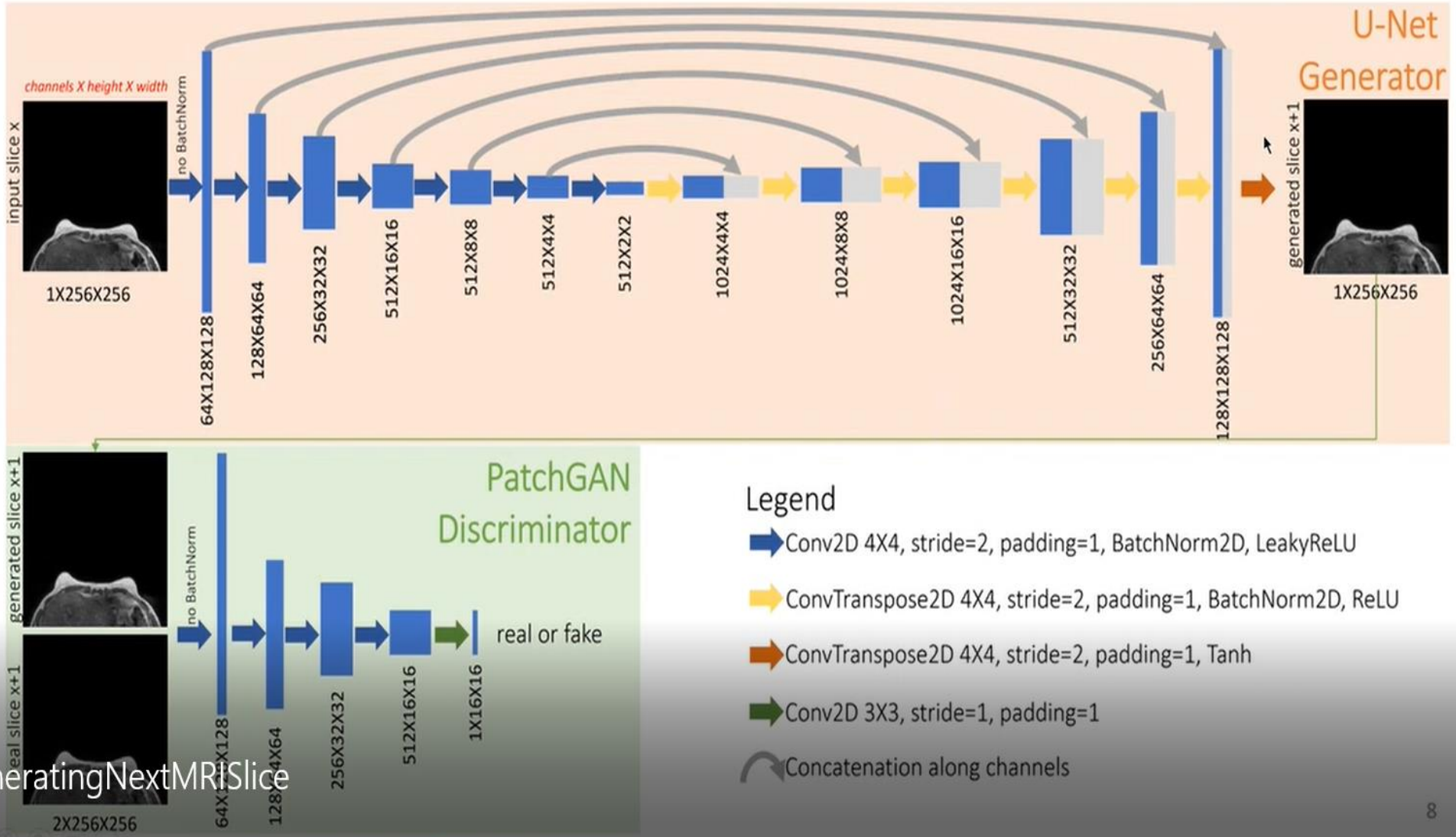
Piotr Karasinski 2013/14



Self-Driving System

ODEL – pix2pix

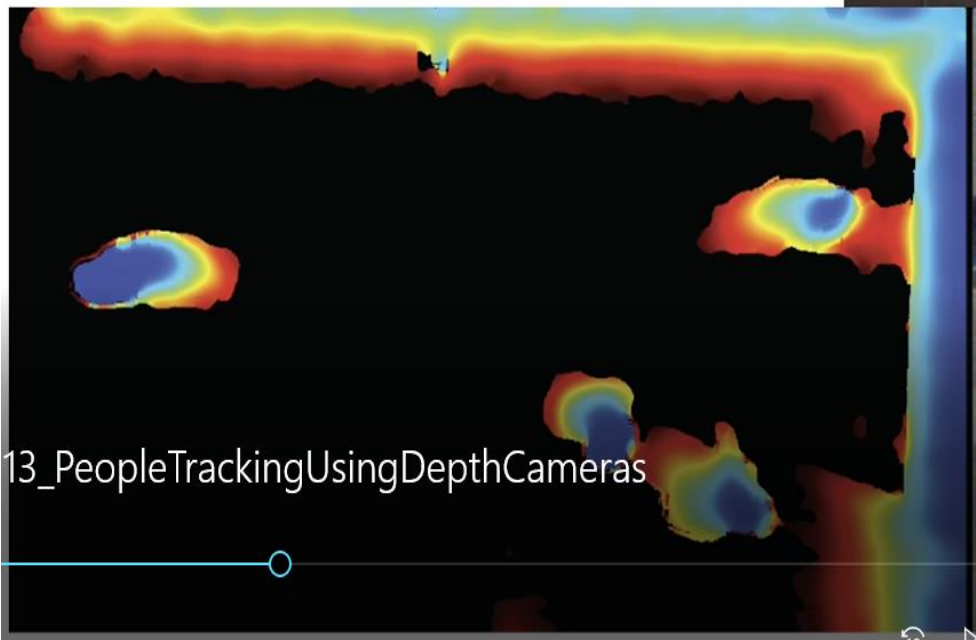
Generating MRI slices using GANs

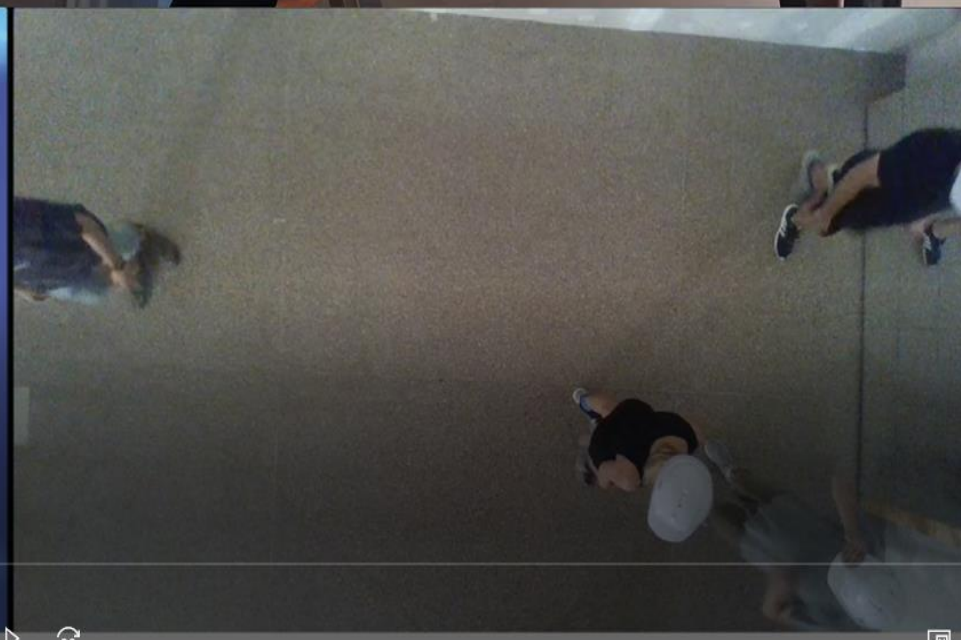


neratingNextMRISlice

People tracking using depth cameras

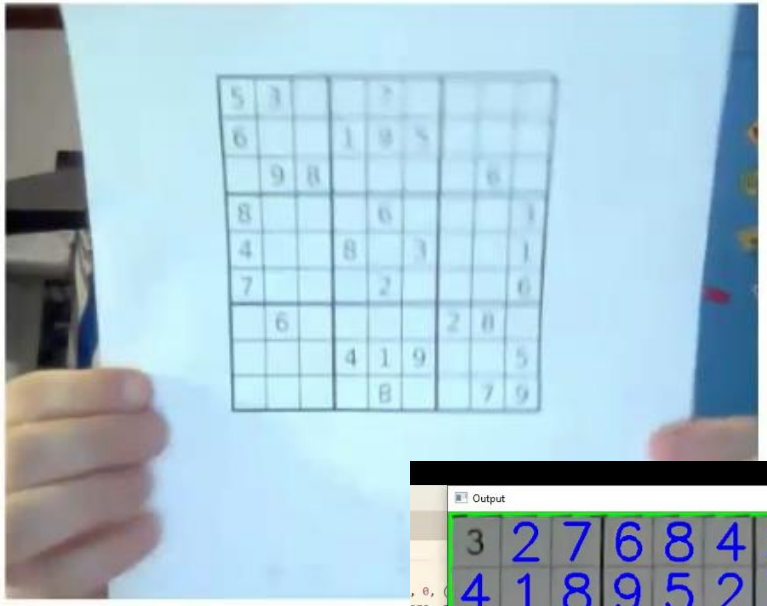
- **6 depth cameras** placed on the ceiling in a matrix
- **already collected** a dataset ~60 GB of recordings





Sudoku Vision

Webcam



Control Panel

Please turn on camera and sh
a sudoku board to play.

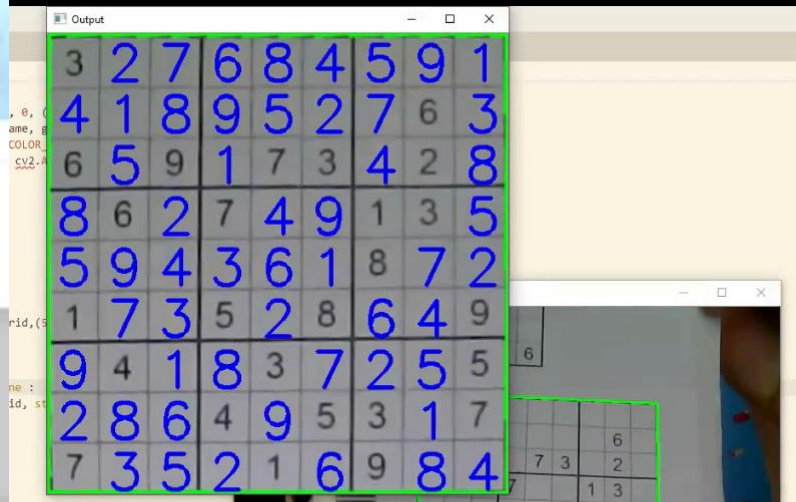
Difficulty:

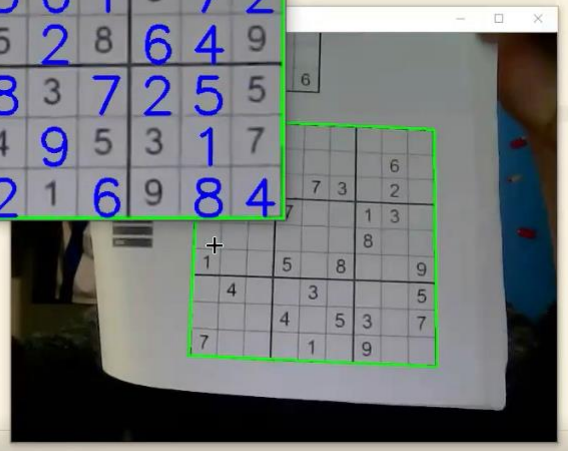
Evaluate your resolution

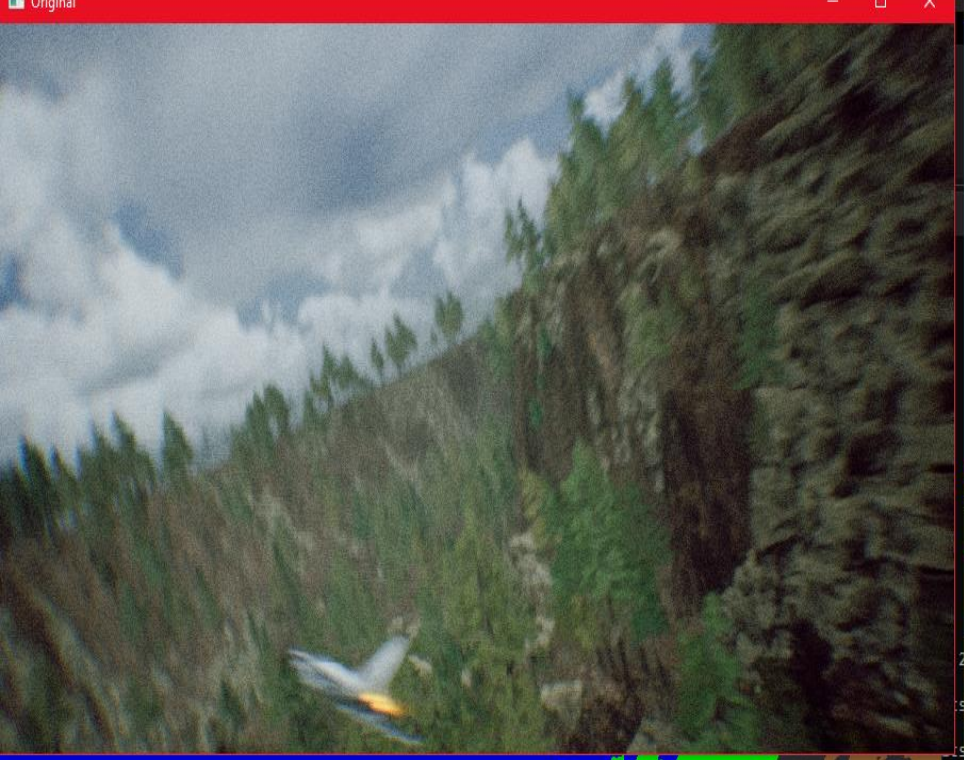
Activate to check your resolution as you answer the sudoku.

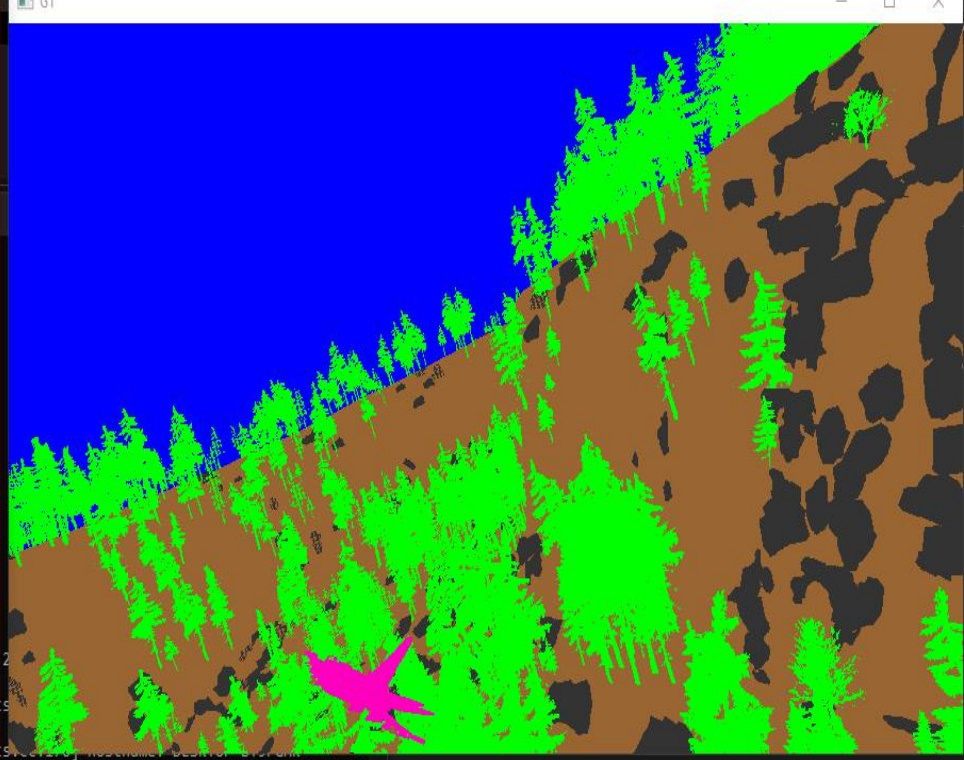
Erase | Solve | Next Step

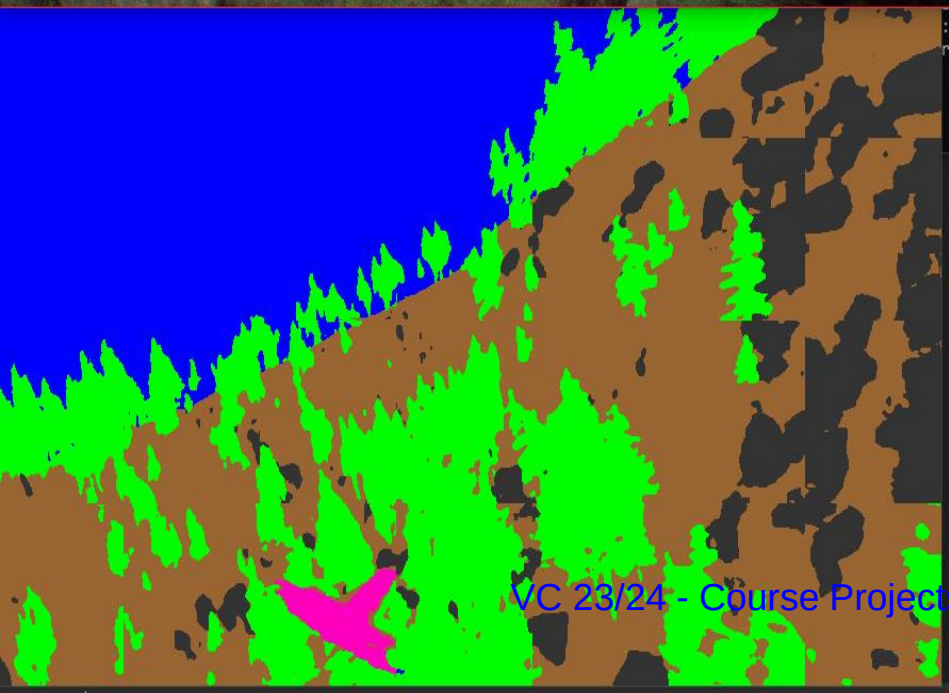
If you want a new sudoku just press the camera button in the header and show a new one to it.











Jet Fighter Detector

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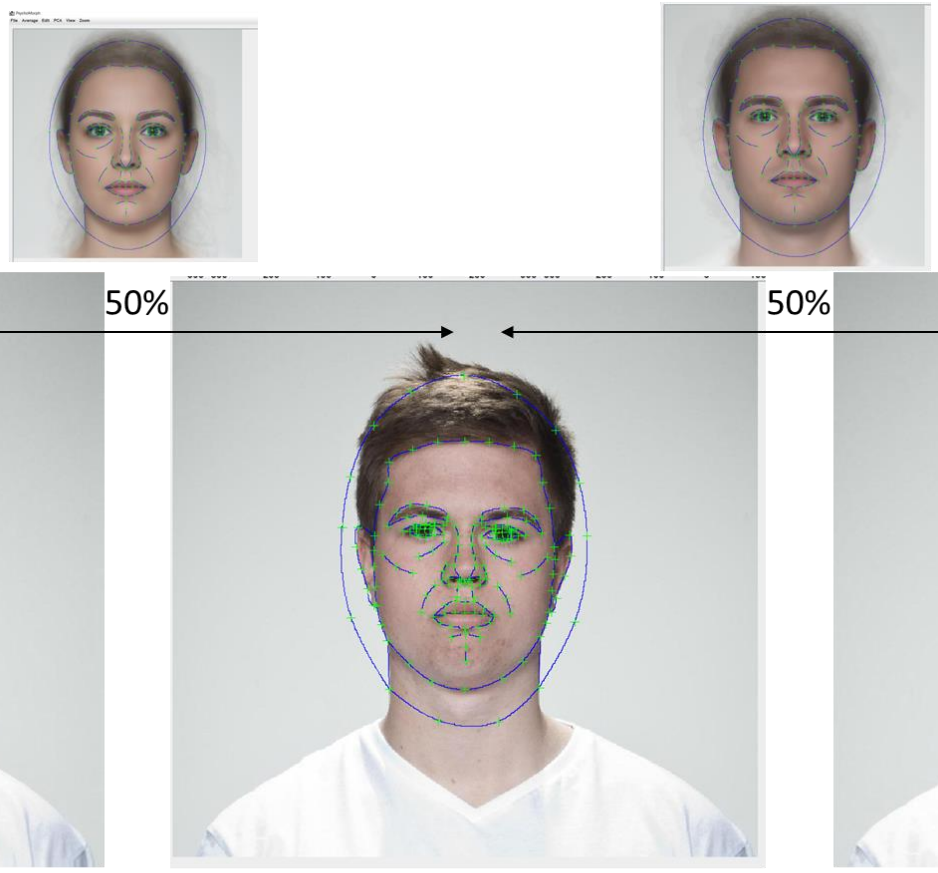
João Pedro Antunes, 22/23

Attractiveness:
What can we learn from algorithms?



Feminized

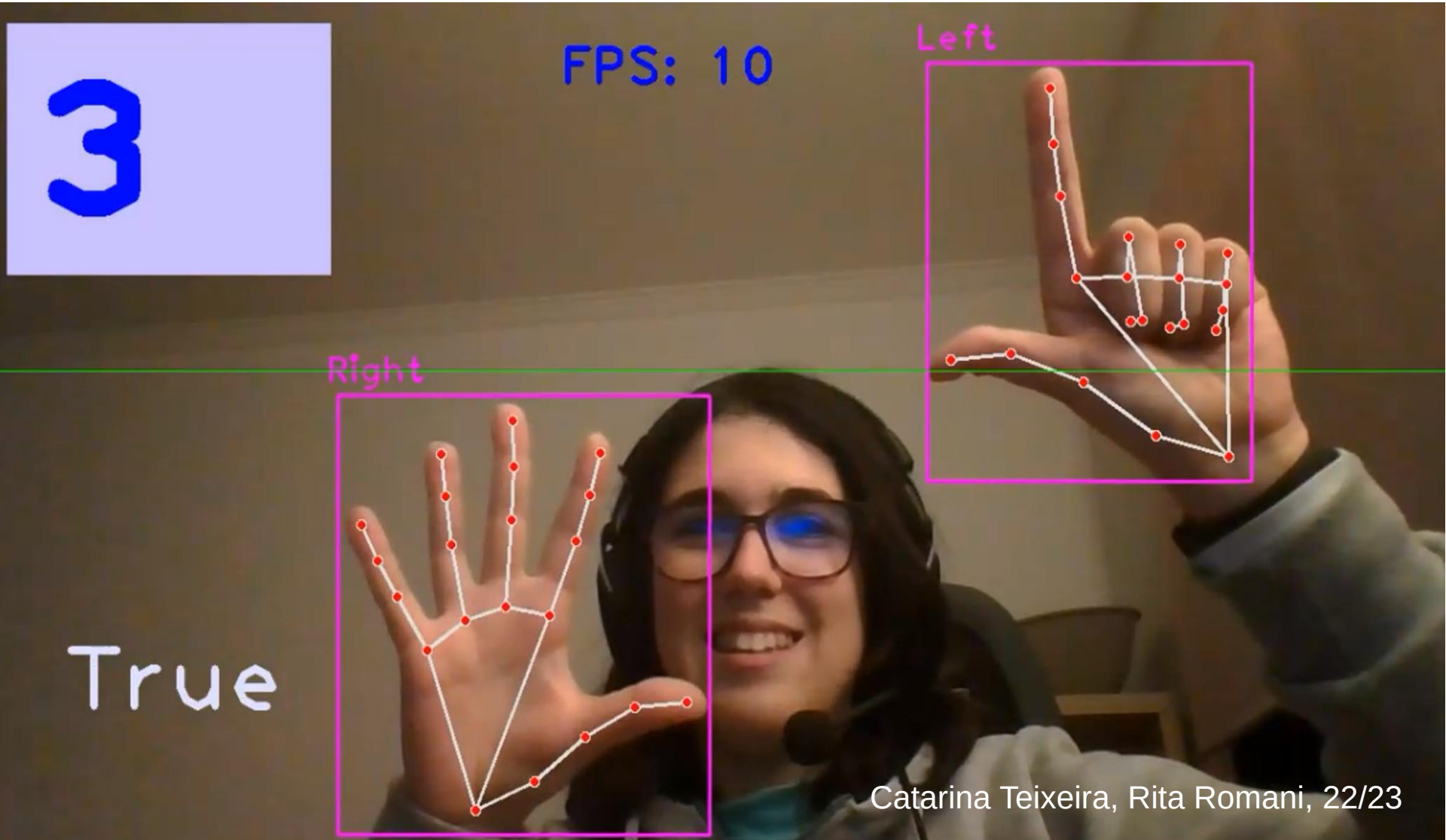
Original

Masculinized

Object Detection in Autonomous Driving

David Costa, André Eiras, 22/23

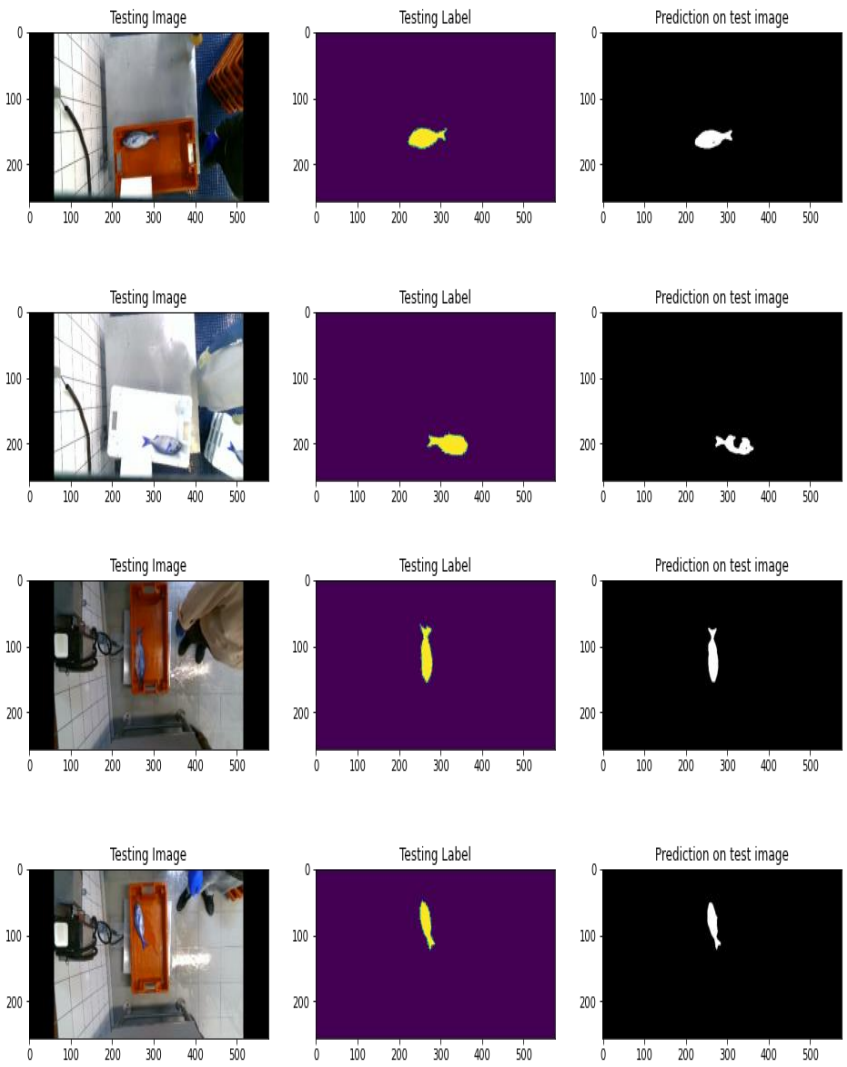
Hand Arithmetic

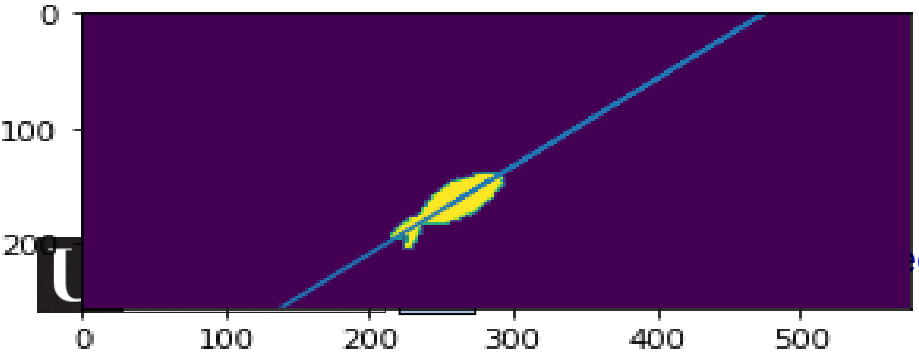


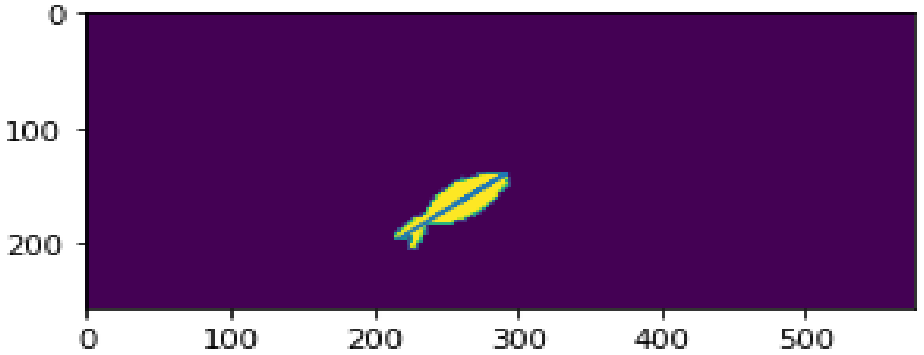
Catarina Teixeira, Rita Romani, 22/23

Measuring Fish Size

Brenda Nogueira, 22/23







What are you going to do?