## Universitat Politècnica de Catalunya Universitat de Barcelona Universitat Rovira i Virgili

MASTER IN ARTIFICIAL INTELLIGENCE

COMPUTATIONAL VISION

## Face detection

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### Contents

1	Exercise 1: Haar-like features and classification	<b>2</b>
	1.1 Compute and visualize Haar-like features	2
2	Exercise 2: Apply and evaluate Viola Jones method on a video	2
$\mathbf{A}$	ppendices	3
A	Annex	3
$\mathbf{L}$	ist of Figures	

### 1 Exercise 1: Haar-like features and classification

#### 1.1 Compute and visualize Haar-like features

#### Question 1:

- Explain the obtained 2-dimensional plot on the feature space.
- Given this 2-dimensional plot, can we infer the defined Haar-like features are appropriate for face/non-face discrimination?

Classification in the feature space

Question 2:

Is the result good enough? Explain your response

Question 3:

What do you infer from the figure? Explain your response

# 2 Exercise 2: Apply and evaluate Viola Jones method on a video

#### Question 4:

- Is the Viola & Jones method detecting faces in the video frames?
- When is the Viola & Jones method not able to detect the faces? Explain your response.

## Appendices

### A Annex

Some text in the annex.