Iniziato	mercoledì, 4 maggio 2022, 12:05
Stato	Completato
Terminato	mercoledì, 4 maggio 2022, 12:19
Tempo impiegato	14 min. 52 secondi
Punteggio	3,67/7,00
Valutazione	**5,24** su un massimo di 10,00 (**52**%)

Select the wrong answer about Viola and Jones algorithm:

OK

Scegli un'alternativa:

- ⦿ VJ algorithm is impossible to use in real time applications ✓
- ◯ AdaBoost is used to select the best set of rectangular features.
- ◯ An integral image is a representation that stores the sum of the intensity values above and to the left of the image point.
- ◯ The use of integral image, rectangular filters, and cascading are some of the peculiarities of this algorithm.

Risposta corretta.

La risposta corretta è: VJ algorithm is impossible to use in real time applications

Select the **correct** answer about Viola and Jones algorithm:

Scegli un'alternativa:

- ◯ VJ algorithm can not operate in real time.
- ◯ Filter coefficient values can assume any value in the range $[0, 1]$.

  Si , Pigla le Brst
- ⦿ AdaBoost is used to select the best set of rectangular features. ✓
- ◯ It can not be trained to identify eyes or mouth (only the overall face).

Risposta corretta.

La risposta corretta è: AdaBoost is used to select the best set of rectangular features.

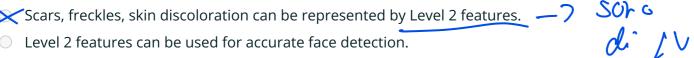Considering facial features and their different levels, select the **wrong** statement among the following.

Scegli un'alternativa:

○ The resolution of the face image determines whether features can be computed and is ruled by IPD.

◉ Level 1 features include global skin color.

○ Scars, freckles, skin discoloration can be represented by Level 2 features. —> sono
di $\{ 1 \vee \}$

○ Level 2 features can be used for accurate face detection. ✗

Your answer is incorrect.

La risposta corretta è: Scars, freckles, skin discoloration can be represented by Level 2 features.

Domanda **4**

Risposta
corretta

Punteggio
ottenuto 1,00
su 1,00

Considering the equation

$$arg\max_W \frac{W^T S_0 W}{W^T S_1 W}$$

$\angle DA$

select among the following sentences the correct one.

Scegli un'alternativa:

◉ The equation defines the Linear Discriminant analysis decomposition and S_1 interclass scatter matrix. ✔

○ The equation defines the Principant Component Analysis decomposition and S_1 is the between class scatter matrix.

○ The equation defines the Fisherface decomposition and S_1 is the interclass scatter matrix.

○ The equation defines the Eigenfaces decomposition and S_1 between class scatter matrix.

Risposta corretta.

La risposta corretta è: The equation defines the Linear Discriminant analysis decomposition and S_1 interclass scatter matrix.

Among the following facial feature set, select the one that contains only local features.

Scegli un'alternativa:

○ PCA, Elastic Bunch Graph Matching ✖

○ Dlib facial landmark, LDA.

○ Tensorface, Elastic Bunch Graph Matching.

○ Dlib facial landmark, Elastic Bunch Graph matching.

Risposta errata.

La risposta corretta è: Dlib facial landmark, Elastic Bunch Graph matching.

In Viola-Jones face detector, consider the following equation

$$h_j(w) = \begin{cases} 1 & \text{if } p_j f_j(w) \leq p_j \theta_j \\ 0 & \text{otherwise} \end{cases}$$

(handwritten: → threshold, f_j = feature, +1)

Select the **wrong** statement among the following.

Scegli un'alternativa:

- ☒ p_j can assume any real value. *(handwritten: → solo ≠1)*
- ○ θ_j is the parameter to be optimized.
- ○ It defines a weak classifier.
- ○ $f_j(w)$ is the response of the filter.

✔

(handwritten margin: weak classif.)

Risposta corretta.

La risposta corretta è: p_j can assume any real value.

Considering the split test equation

$$h(I_{\pi_i}, \hat{\mathbf{S}}_i^{(t)}, \theta) = \begin{cases} 1 & \text{if } |I_{\pi_i}(u') - I_{\pi_i}(v')| < \tau \\ \\ 0 & \text{otherwise,} \end{cases}$$

select the **wrong** statement.

Scegli un'alternativa:

○ u' is only a transated version of v.

◉ u' and v' are different for each node.

○ θ includes the parameter τ.

○ When the output is 1, u' and v' have converged.

Risposta errata.

La risposta corretta è: u' is only a transated version of v.

◄ Quiz-Fingerprint

Vai a...

Lecture 15 - Fairness / Introduction to iris recognition ►

DOCUMENTAZIONE

Moodle

Kaltura