Computer Vision A-Z

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### **Cascading**



$$F(x)=\alpha_1f_1(x)+\alpha_2f_2(x)+\alpha_3f_3(x)+\dots$$

$$F(x) = \alpha_1 f_1(x) + \alpha_2 f_2(x) + \alpha_3 f_3(x) + \dots$$

Sub-Window

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# **Cascading**

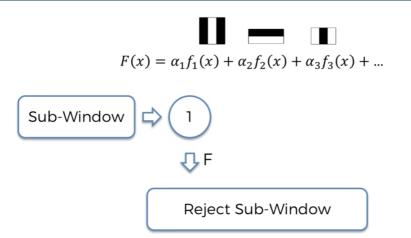
$$F(x) = \alpha_1 f_1(x) + \alpha_2 f_2(x) + \alpha_3 f_3(x) + \dots$$

Sub-Window 🖒 1

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Here number 1 is the first important feature. For example nose in the face.

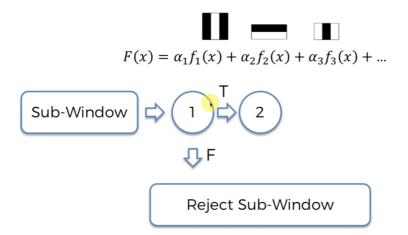


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If we cannot detect the first important feature then we reject it.

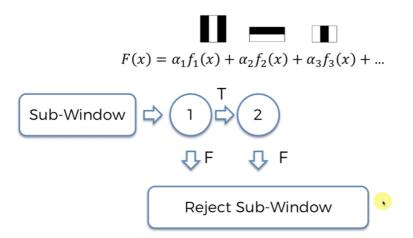
#### **Cascading**



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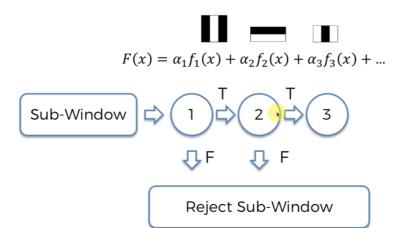
If on the other hand we see the first important feature then it goes to the second important feature, and so on



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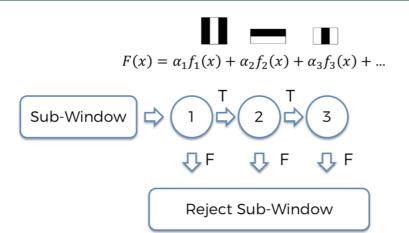
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# **Cascading**



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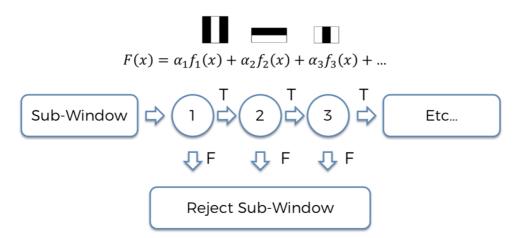
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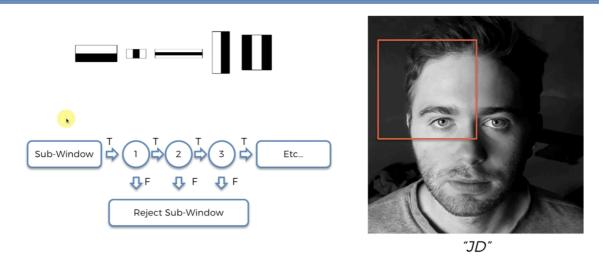
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### **Cascading**



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For example in here in the square it can detect the first one which is eye then the eyebrow but since it doesn't detect the nose then it will reject the algorithm which this is a face.