

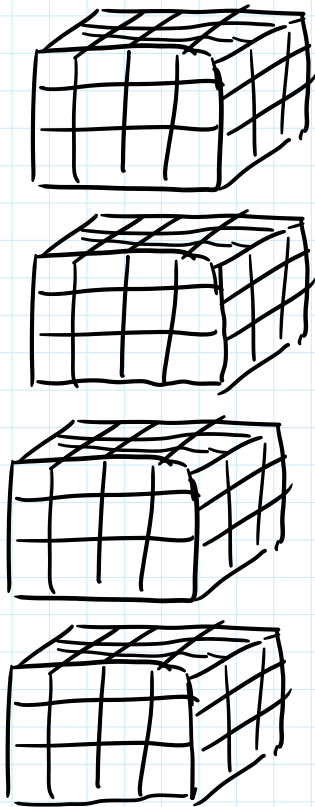
2D Tensor  $\rightarrow$  matrix 


 (plano)  $(n, m)$

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#imagenes    matriz

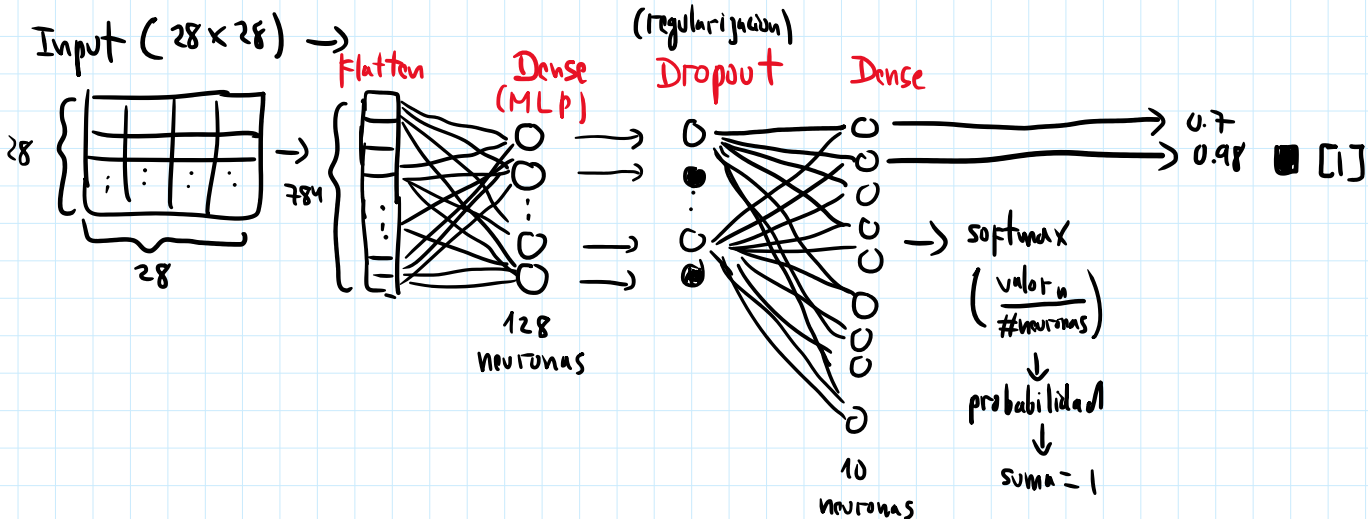
4D tensor →



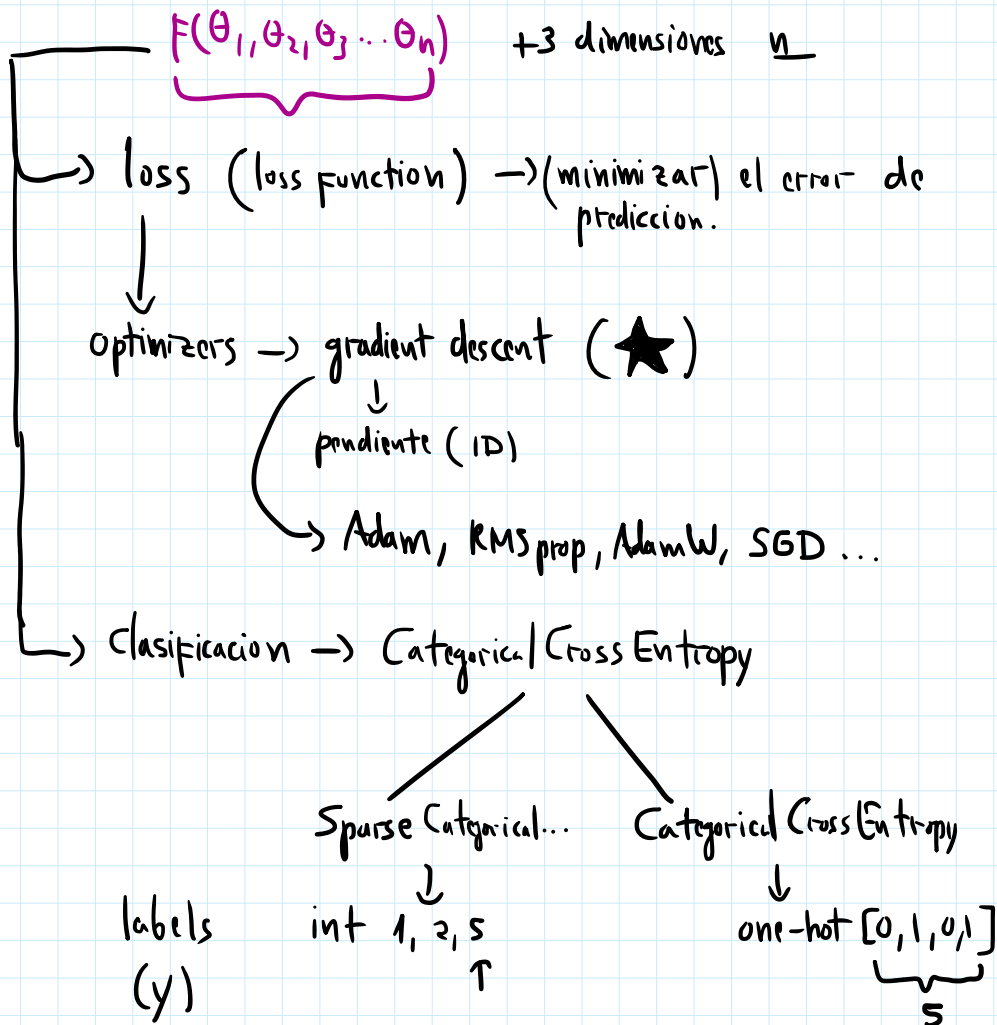
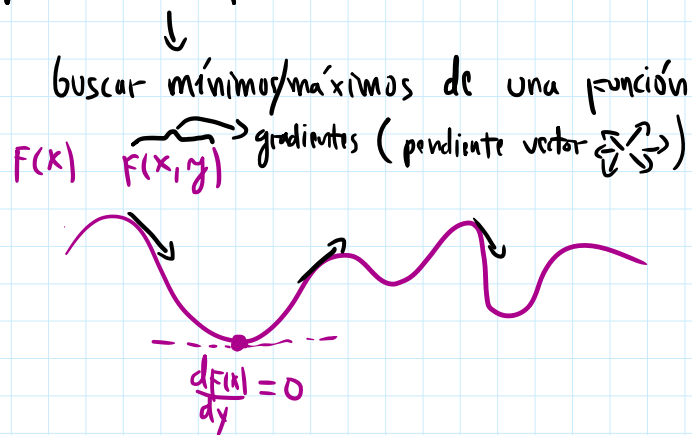
#dataset  
 $(p, m, n, c)$   
 imagen canal → (R, G, B)  
 $(28 \times 28) \quad 3$

Tensorflow → Secuencial (Sequential) → □ → □ → □ → □ - pred  
 Functional (Functional) → □ → □ → □ → □ - pred

```
model = tf.keras.models.Sequential([
    tf.keras.layers.Flatten(input_shape=(28, 28)),
    tf.keras.layers.Dense(128, activation='relu'),
    tf.keras.layers.Dropout(0.2),
    tf.keras.layers.Dense(10)
])
```



Deep Learning :  $\rightarrow$  problema de optimización



- Ejemplo (60 000 datos)

