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Operaciones con matrices

$$A = \begin{bmatrix} 5 & 1 & 2 \\ 1 & 3 & 7 \\ 2 & 7 & 8 \end{bmatrix}$$

$$B = \begin{bmatrix} 3 & 4 \\ 7 & 3 \\ 1 & 1 \end{bmatrix}$$

$n = m$
número de columnas = número de filas

$$C = 3 \times 2 = \begin{bmatrix} 30 & 25 \\ 52 & 20 \\ 87 & 37 \end{bmatrix}$$

$$C_{ij} = \sum_{k=1}^n A_{ik} B_{kj}$$

$$C_{11} (\text{fila } 1 \text{ de } A \times \text{columna } 1 \text{ de } B) \\ (5)(3) + (7)(1) + (2)(4) = 30$$

$$C_{12} (\text{fila } 1 \text{ de } A \times \text{columna } 2 \text{ de } B) \\ (5)(4) + (3)(1) + (2)(1) = 25$$

$$C_{21} (\text{fila } 2 \text{ de } A \times \text{columna } 1 \text{ de } B) \\ (1)(3) + (3)(7) + (7)(4) = 52$$

$$C_{22} (\text{fila } 2 \text{ de } A \times \text{columna } 2 \text{ de } B) \\ (1)(4) + (3)(3) + (7)(1) = 20$$

$$C_{31} (\text{fila } 3 \text{ de } A \times \text{columna } 1 \text{ de } B) \\ (2)(3) + 7(7) + (8)(4) = 87$$

$$C_{32} (\text{fila } 3 \text{ de } A \times \text{columna } 2 \text{ de } B) \\ (2)(4) + (7)(3) + (8)(1) = 37$$