

Vector A

$$\begin{bmatrix} a_1, a_2, a_3, \\ a_7, \dots, a_n \end{bmatrix}$$

Vector B

$$\begin{bmatrix} b_1, b_2, b_3, \\ b_7, \dots, b_n \end{bmatrix}$$

Vector D

$$\begin{bmatrix} a_1 - b_1, a_2 - b_2, \\ a_3 - b_3, a_3 - b_3, \\ \dots, a_n - b_n \end{bmatrix}$$

Vector C

Cosine
Similarity

$$\frac{\mathbf{A} \cdot \mathbf{B}}{\|\mathbf{A}\| \|\mathbf{B}\|}$$

Composite Vector

$$\left(\mathbf{A} - \mathbf{B}, \frac{\mathbf{A} \cdot \mathbf{B}}{\|\mathbf{A}\| \|\mathbf{B}\|} \right)$$