

for  $j=1$  to  $n$

for  $k=1$  to  $r$

$$c(i, j) = c(i, j) + A(i, k) * B(k, j)$$

for  $j=1$  to  $n$

for  $k=1$  to  $r$

$$C(*, j) = C(*, j) + A(*, k) \cdot B(k, j)$$

A column of  $C$  is computed using a column of  $A$  and an element of  $B$ . (partial)

$$\boxed{\text{column}} = \boxed{\text{column}} \cdot \boxed{\text{element}}$$

for  $j=1$  to  $n$

$$C(*, j) = C(*, j) + A \cdot B(*, j)$$

A column of  $C$  is computed using a column of  $B$  and entire matrix  $A$ .

$$\boxed{\text{column}} = \boxed{\text{matrix}} \cdot \boxed{\text{column}}$$

column major

for  $i=1$  to  $m$

for  $k=1$  to  $r$

$$c(i, j) = c(i, j) + A(i, k) * B(k, j)$$

for  $i=1$  to  $m$

for  $k=1$  to  $r$

$$C(i, *) = C(i, *) + A(i, k) * B(k, *)$$

A row of  $C$  is computed using an element of  $A$  and a row of  $B$ . (partial)

$$\boxed{\text{row}} = \boxed{\text{element}} \cdot \boxed{\text{row}}$$

for  $i=1$  to  $m$

$$C(i, *) = C(i, *) + A(i, *) * B$$

A row of  $C$  is computed using a row of  $A$  and entire matrix  $B$ .

$$\boxed{\text{row}} \cdot \boxed{\text{matrix}} = \boxed{\text{row}} \cdot \boxed{\text{matrix}}$$

row major