

How does matching in cuda works?

1 4 2 3
 2 1 2 1
 3 4 2 1
 1 1 1 1
 Starting matrix

2 1
 2 1
 find matrix

the program also check it as
 $\begin{bmatrix} 1 & 2 \\ 1 & 2 \end{bmatrix}$

WORKS as:

For every number in starting matrix we are going to check if find matrix appears as:

1 4 2 3
 2 1 2 1
 3 4 2 1
 1 1 1 1
 starting (1,2) :
 2

starting at 1 we search
 $\begin{bmatrix} 2 & 1 \\ 2 & 1 \end{bmatrix}$ and $\begin{bmatrix} 1 & 2 \\ 1 & 2 \end{bmatrix}$

as:

1 - 2^x 4 - 1^x
 2 - 2 1 - 1
 Matched₁ = 2 compared₁ = 4
 Matched₃ = 1 compared₃ = 4

2 - 2 1 - 1
 2 - 2 1 - 1
 Matched₁ = 4
 % of similarity₁

% similarity₁ = $\frac{2}{4} = 0.5$
 % similarity₂ = $\frac{1}{4} = 0.25$

Final % similarity = 0.5

Compared $= 4$

Matched $= 0$

Compared $= 4$

$R=1$

% similarity/s

$R=0$

Final % = 1

Finally we get
after checking every cell:

We get the
max

$R=1$

\Rightarrow

[matrix from
0-1]

max
ops = 100
%5