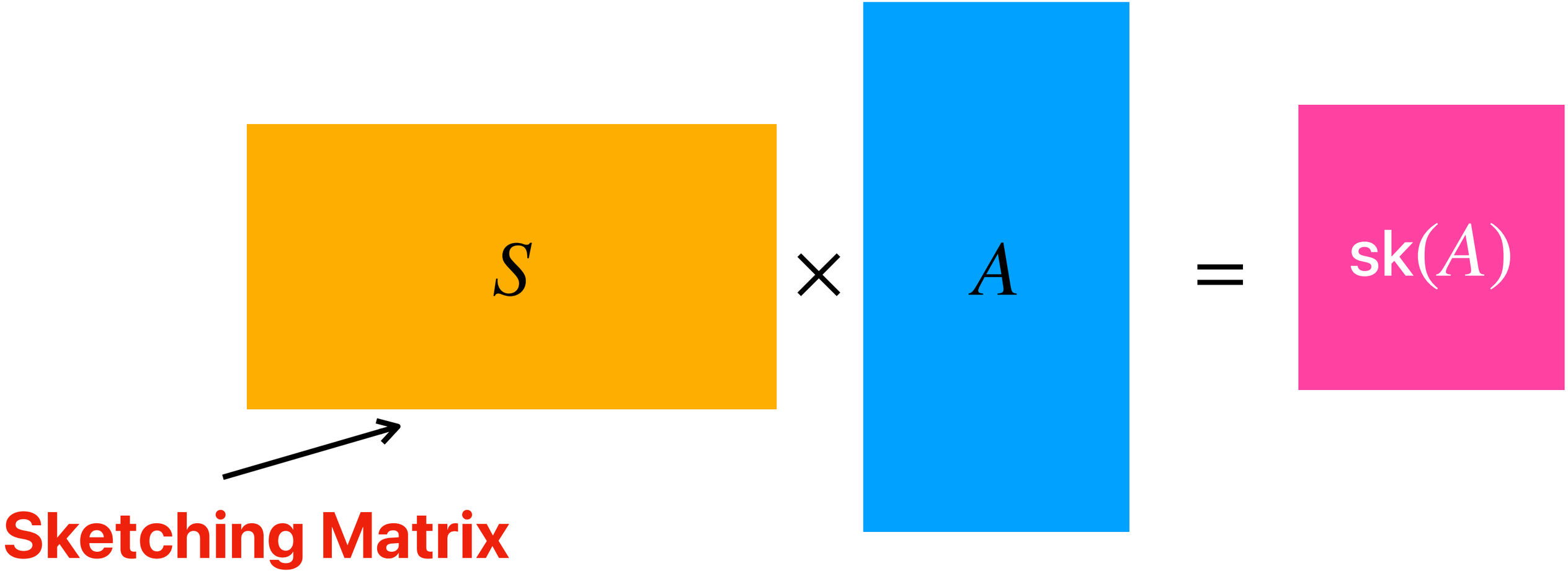
# Linear Sketching

- Apply a randomized linear transform

- CountSketch [Clarkson, Woodruff '13], OSNAP [Nelson, Nguyen '13], SRHT [Tropp '10], ...


$S$
$\times$
$A$
$=$
$\mathsf{sk}(A)$
Sketching Matrix

- $S$ consolidates necessary information in $A$ into the “sketch”

4

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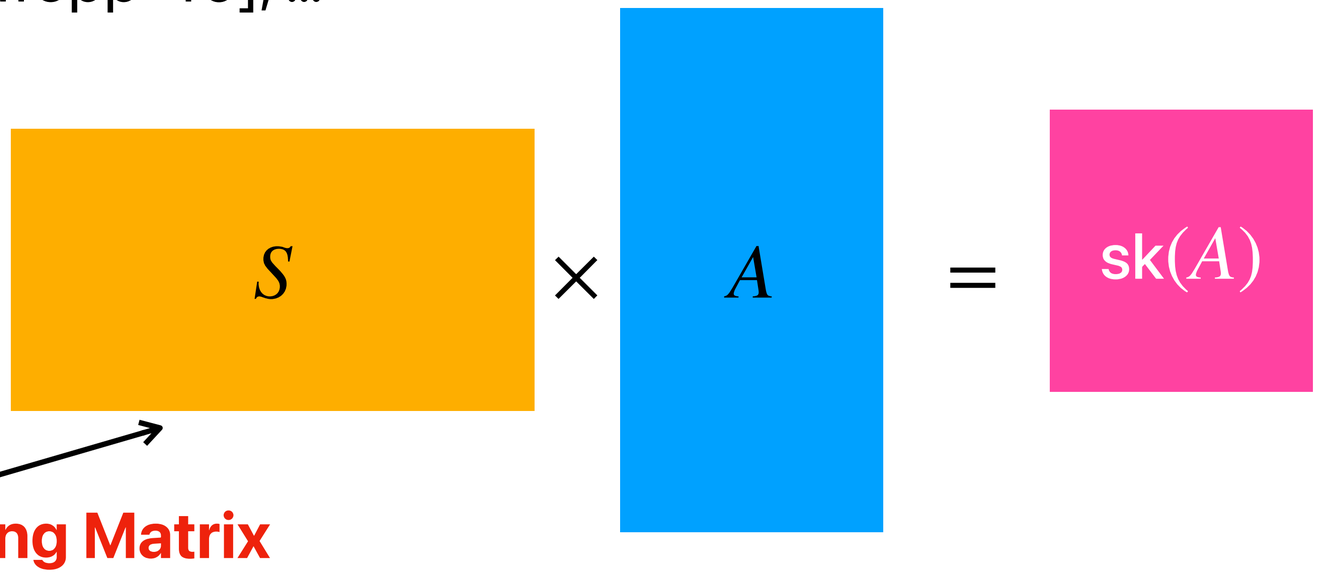


- $S$ consolidates necessary information in $A$ into the "sketch"

# Efficient Linear Sketching