Bucks for Buckets (B4B): Active Defenses Against Stealing Encoders

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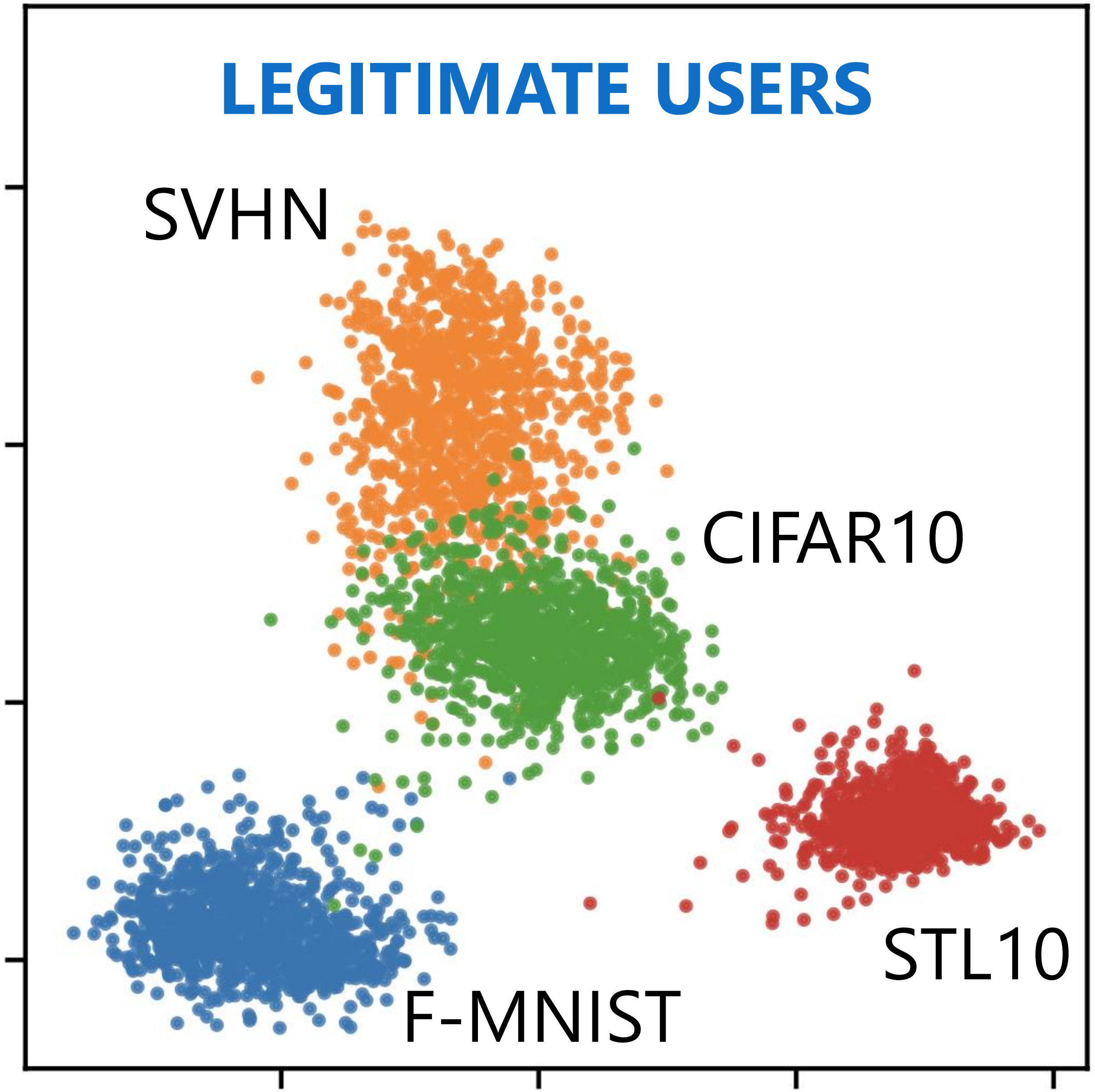
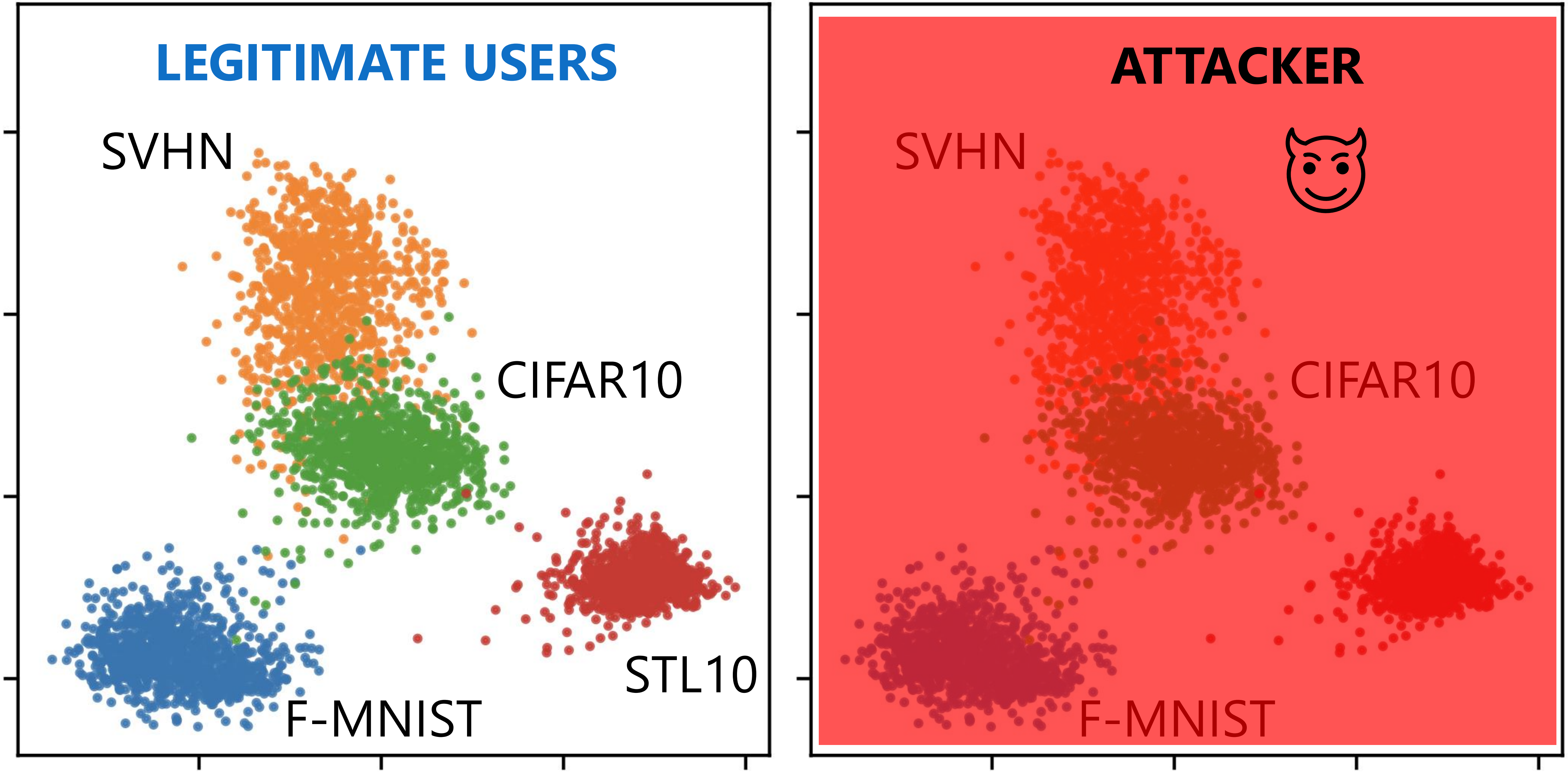
SprintML

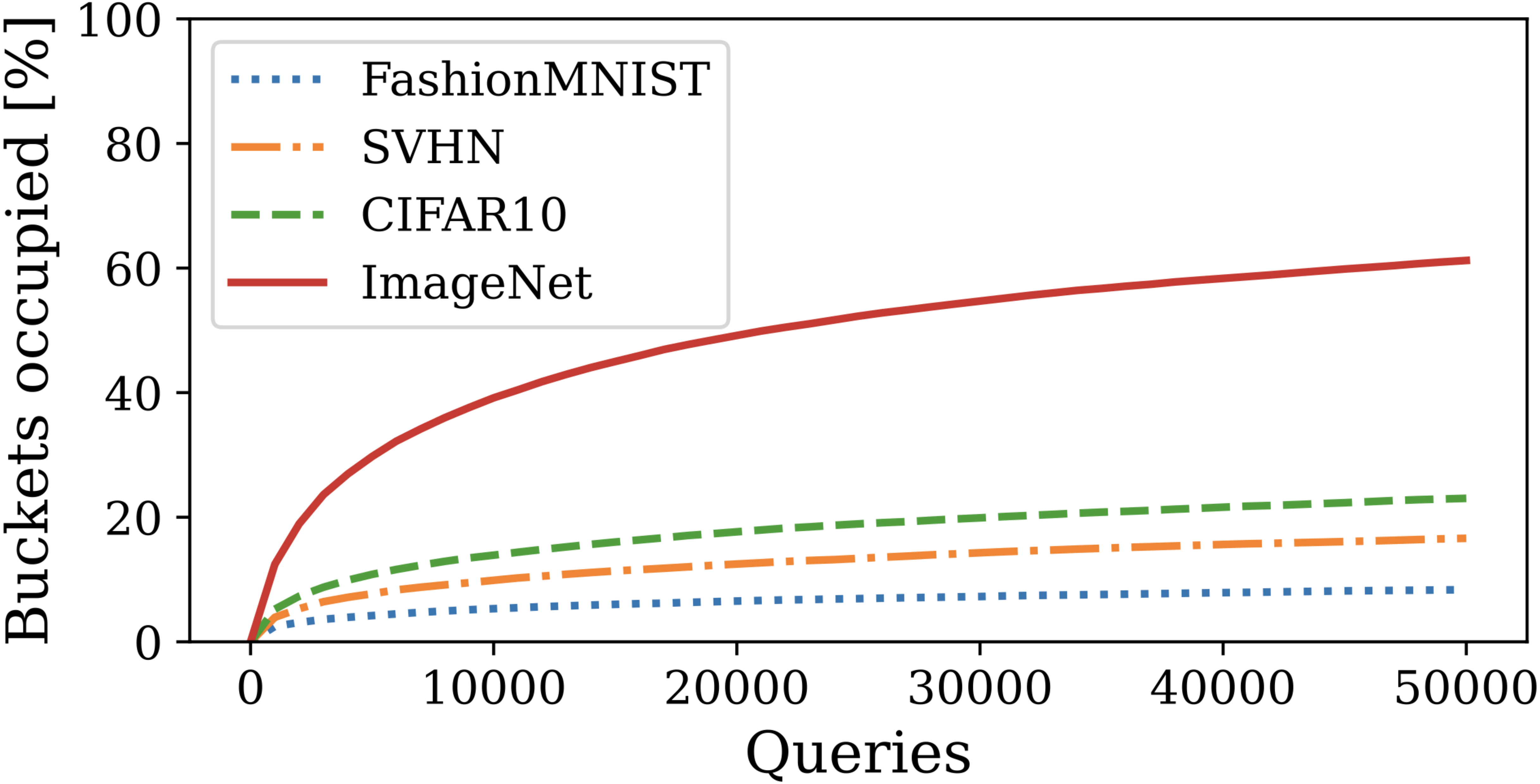
Active Defenses against Stealing SSL Models



Active Defenses against Stealing SSL Models

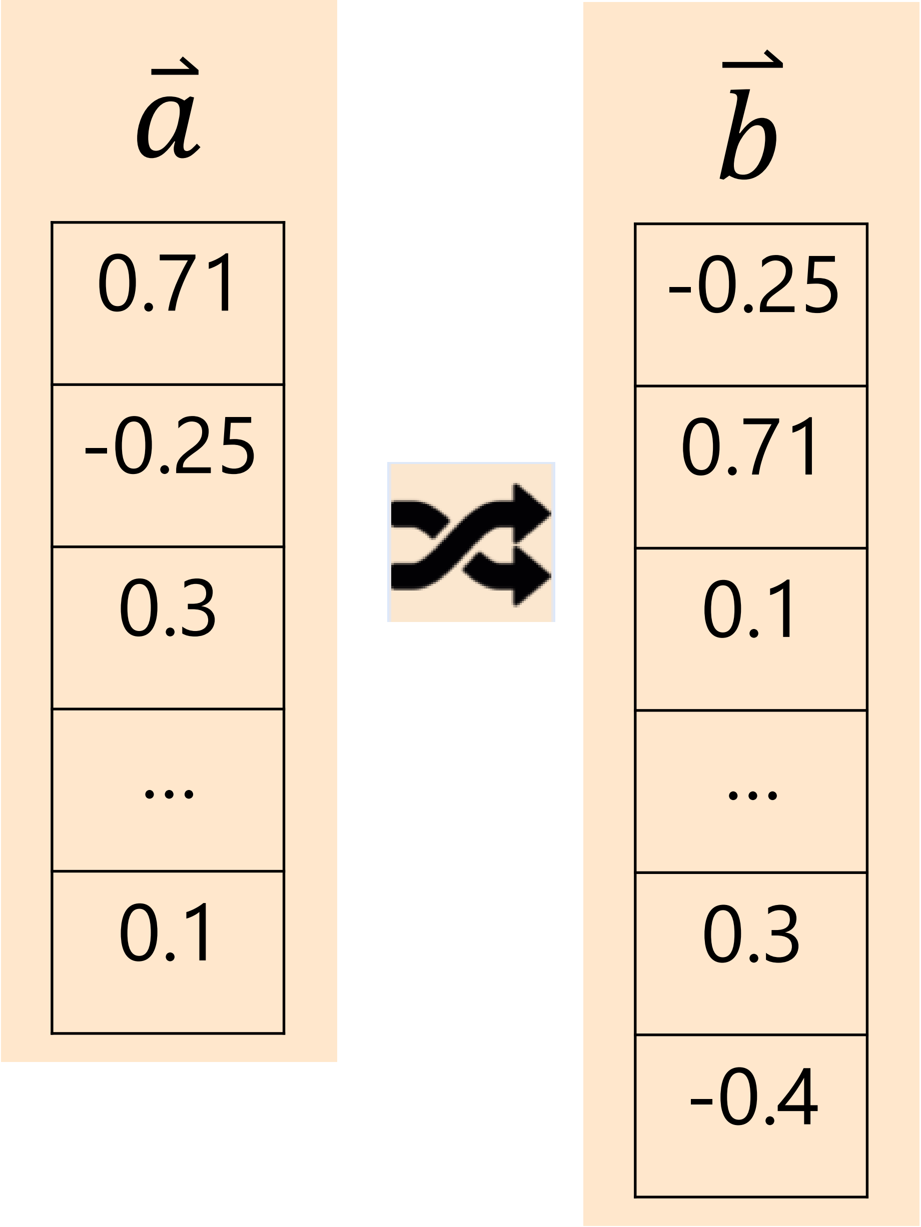


Fraction of Occupied Buckets



Output Transformations against Sybil Attacks

- Affine
- Pad+Shuffle
- Affine+Pad+Shuffle
- Binary



$\vec{a}$

0.71
-0.25
0.3
…
0.1

$\vec{b}$

-0.25
0.71
0.1
…
0.3
-0.4

Preserve performance for Legitimate Users

Defense	CIFAR10	STL10	SVHN	F-MNIST
None	90.41	95.08	75.47	91.22
B4B	90.24	95.08	74.96	91.7

Lowers Performance for Attackers

Defense	CIFAR10	STL10	SVHN	F-MNIST
None	68.1	63.1	61.5	89.0
B4B	12.01	13.94	19.96	69.93