

	Full Bilinear	Random Maclaurin	Tensor Sketch	LRBP-I	LRBP-II
Feature Dim	c^2 [262K]	d [10K]	d [10K]	mhw [78K]	cm [200KB]
Feature computation	$O(hwc^2)$	$O(hwcd)$	$O(hw(c + d \log d))$	$O(hwmc)$	$O(hwcm)$
Classification comp.	$O(Kc^2)$	$O(Kd)$	$O(Kd)$	$O(Krmhw)$	$O(Krmcm)$
Feature Param	0	$2cd$ [40MB]	$2c$ [4KB]	cm [200KB]	cm [200KB]
Classifier Param	Kc^2 [KMB]	Kd [K·32KB]	Kd [K·32KB]	Krm [K·3KB]	Krm [K·3KB]
Total ($K = 200$)	Kc^2 [200MB]	$2cd + Kd$ [48MB]	$2c + Kd$ [8MB]	$cm + Krm$ [0.8MB]	$cm + Krm$ [0.8MB]