

Table A: Number of applications after balancing the initial dataset

Number of apps Techniques of balancing	Number of Benign apps	Number of malware
SMOTE technique	3000	2958
Random under-sampling technique	974	1000
Combined technique	2075	1942

Table B: Results of the balancing dataset after increasing the number of applications

Number of apps Techniques of balancing	Number of Benign apps	Number of malware
SMOTE technique	7965	7896
Random under-sampling technique	4466	4500
Combined technique	7294	7065