|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Modelos | Accuracy | Precisión | | Recall | | F1 |
| Beto + Bert + Albert\_base | 0.9484 | | 0.8694 | 0.8479 | 0.8582 | | |
| Beto + Bert + Albert\_Large | 0.9505 | | **0.8763** | 0.8521 | 0.8637 | | |
| Beto + Bert + Albert\_xx\_Large | 0.9469 | | 0.8606 | 0.8537 | 0.8571 | | |
| Beto + Albert\_base + Bertin\_base | 0.9377 | | 0.8298 | 0.8470 | 0.8381 | | |
| Bert + Albert\_large + Bertin\_large | 0.9458 | | 0.8606 | 0.8445 | 0.8523 | | |
| Beto + Albert\_large + Albert\_xx\_large | 0.9469 | | 0.8489 | 0.8880 | 0.8653 | | |
| Beto + Bert + Albert\_base + Albert\_large + Albert\_xx\_large | **0.9506** | | 0.8642 | **0.8950** | **0.8742** | | |
| Beto + Bert + Albert\_base + Bertin\_base + Electra\_base | 0.9427 | | 0.8508 | 0.8387 | 0.8446 | | |
| Beto + Bert + Albert\_large + Bertin\_large + Electra\_base | 0.9476 | | 0.8692 | 0.8424 | 0.8552 | | |
| Beto + Bert + Albert\_base + Albert\_large + Albert\_xx\_large + Bertin\_large + Electra\_base | 0.9499 | | 0.8617 | 0.8659 | 0.8663 | | |

**Ensamble Votación Máxima**

**Ensamble Promedio**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Modelos | Accuracy | | Precisión | Recall | F1 |
| Beto + Bert + Albert\_base | | 0.9585 | 0.8948 | 0.8804 | 0.8874 | |
| Beto + Bert + Albert\_Large | | **0.9613** | **0.9063** | 0.8819 | 0.8936 | |
| Beto + Bert + Albert\_xx\_Large | | 0.9577 | 0.8863 | 0.8890 | 0.88756 | |
| Beto + Albert\_base + Bertin\_base | | 0.9499 | 0.8639 | 0.8720 | 0.8679 | |
| Bert + Albert\_large + Bertin\_large | | 0.9594 | 0.8979 | 0.8813 | 0.8894 | |
| Beto + Albert\_large + Albert\_xx\_large | | 0.9578 | 0.8867 | 0.8891 | 0.8879 | |
| Beto + Bert + Albert\_base + Albert\_large + Albert\_xx\_large | | 0.9603 | 0.8953 | **0.8925** | **0.8939** | |
| Beto + Bert + Albert\_base + Bertin\_base + Electra\_base | | 0.9576 | 0.8883 | 0.8844 | 0.8863 | |
| Beto + Bert + Albert\_large + Bertin\_large + Electra\_base | | 0.9609 | 0.9056 | 0.8792 | 0.8922 | |
| Beto + Bert + Albert\_base + Albert\_large + Albert\_xx\_large + Bertin\_large + Electra\_base | | 0.9603 | 0.8977 | 0.8884 | 0.8930 | |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Modelos | Accuracy | Precisión | Recall | F1 | Pesos |
| Beto + Bert + Albert\_base | 0.9591 | 0.8982 | 0.8792 | 0.8884 | 0.40, 0.35, 0.25 |
| Beto + Bert + Albert\_Large | **0.9603** | **0.9033** | 0.8798 | **0.8911** | 0.35, 0.25, 0.40 |
| Beto + Bert + Albert\_xx\_Large | 0.9565 | 0.8803 | **0.8913** | 0.8857 | 0.35, 0.25, 0.40 |
| Beto + Albert\_base + Bertin\_base | 0.9509 | 0.8685 | 0.8700 | 0.8693 | 0.35, 0.40, 0.25 |
| Bert + Albert\_large + Bertin\_large | 0.9600 | 0.9004 | 0.8817 | 0.8907 | 0.35, 0.40, 0.25 |
| Beto + Albert\_large + Albert\_xx\_large | 0.9565 | 0.8805 | 0.8908 | 0.8856 | 0.25, 0.35, 0.40 |
| Beto + Bert + Albert\_base + Albert\_large + Albert\_xx\_large | 0.9593 | 0.8922 | 0.8899 | 0.8910 | 0.20,0.20,0.15,0.20,0.25 |
| Beto + Bert + Albert\_base + Bertin\_base + Electra\_base | 0.9595 | 0.8975 | 0.8829 | 0.8900 | 0.30,0.30,0.15,0.15,  0.10 |
| Beto + Bert + Albert\_large + Bertin\_large + Electra\_base | 0.9515 | 0.8835 | 0.8725 | 0.8846 | 0.25,0.25,0.20,0.20,0.10 |
| Beto + Bert + Albert\_base + Albert\_large + Albert\_xx\_large + Bertin\_large + Electra\_base | 0.9594 | 0.8918 | 0.8911 | 0.8906 | 0.15,0.15,0.10,0.25,0.25,  0.10,0.10 |

**Ensamble Promedio Ponderado**

**Ensamble boosting**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Modelos | Accuracy | Precisión | Recall | F1 |
| Beto + Bert + Albert\_Large | 0.9488 | 0.8838 | 0.8280 | 0.8530 |
| Beto + Albert\_Large + Albert\_xx\_Large | 0.9460 | 0.8560 | 0.8557 | 0.8558 |
| Beto + Bert + Albert\_base + Albert\_Large + Albert\_xx\_Large | 0.9490 | 0.8737 | 0.8447 | 0.8693 |

**Ensamble stacking**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Modelos | Accuracy | Precisión | Recall | F1 |
| Beto + Bert + Albert\_Large | 0.9454 | 0.8636 | 0.8346 | 0.8483 |
| Beto + Albert\_Large + Albert\_xx\_Large | 0.9467 | 0.8738 | 0.8273 | 0.8485 |
| Beto + Bert + Albert\_base + Albert\_Large + Albert\_xx\_Large | 0.9487 | 0.8697 | 0.8501 | 0.8596 |