ANEXO: TABLAS

|  |  |  |
| --- | --- | --- |
|  | *Escherichia coli* | Placa |
| Iteración 1 | 15 | 25 |
| Iteración 7 | 38 | 48 |
| Iteración 9 | 60 | 72 |

*Tabla 1: número de etiquetas por iteración.*

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Iteración 1** | **Iteración 1** | **Iteración 7** | **Iteración 7** | **Iteración 9** | **Iteración 9** |
| *Umbral de probabilidad* | *50%* | *70%* | *50%* | *70%* | *50%* | *70%* |
| Precisión  Modelo | 89,5% | 100% | 87,2% | 100% | 74,7% | 79,8% |
| Coincidencia Modelo | 23,3% | 11,4% | 50,6% | 25,9% | 61,3% | 44,8% |

*Tabla 2: precisión y coincidencia de los modelos entrenados para umbrales de probabilidad 50% y 70%.*

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Recuento humano** | **Iteración 1 / 50%** | |  | **Iteración 1 / 70%** | |  |
| Recuento predicción | Error absoluto | Error relativo | Recuento predicción | Error absoluto | Error relativo |
| **0** | *0* | 0,00 | 0,0000 | *0* | 0,00 | 0,0000 |
| **0** | *1* | 1,00 | 0,0000 | *1* | 1,00 | 0,0000 |
| **1** | *2* | 1,00 | 100,0000 | *1* | 0,00 | 0,0000 |
| **1** | *2* | 1,00 | 100,0000 | *1* | 0,00 | 0,0000 |
| **2** | *2* | 0,00 | 0,0000 | *2* | 0,00 | 0,0000 |
| **3** | *4* | 1,00 | 33,3333 | *3* | 0,00 | 0,0000 |
| **4** | *5* | 1,00 | 25,0000 | *3* | 1,00 | 25,0000 |
| **5** | *6* | 1,00 | 20,0000 | *6* | 1,00 | 20,0000 |
| **6** | *8* | 2,00 | 33,3333 | *7* | 1,00 | 16,6667 |
| **7** | *8* | 1,00 | 14,2857 | *7* | 0,00 | 0,0000 |
| **8** | *9* | 1,00 | 12,5000 | *7* | 1,00 | 12,5000 |
| **9** | *8* | 1,00 | 11,1111 | *6* | 3,00 | 33,3333 |
| **10** | *10* | 0,00 | 0,0000 | *7* | 3,00 | 30,0000 |
| **17** | *15* | 2,00 | 11,7647 | *15* | 2,00 | 11,7647 |
| **20** | *18* | 2,00 | 10,0000 | *15* | 5,00 | 25,0000 |
| **20** | *15* | 5,00 | 25,0000 | *11* | 9,00 | 45,0000 |
| **27** | *21* | 6,00 | 22,2222 | *20* | 7,00 | 25,9259 |
| **28** | *19* | 9,00 | 32,1429 | *18* | 10,00 | 35,7143 |
| **30** | *23* | 7,00 | 23,3333 | *20* | 10,00 | 33,3333 |
| **36** | *26* | 10,00 | 27,7778 | *21* | 15,00 | 41,6667 |
| **44** | *33* | 11,00 | 25,0000 | *27* | 17,00 | 38,6364 |
| **54** | *36* | 18,00 | 33,3333 | *33* | 21,00 | 38,8889 |
| **56** | *33* | 23,00 | 41,0714 | *29* | 27,00 | 48,2143 |
| **80** | *34* | 46,00 | 57,5000 | *27* | 53,00 | 66,2500 |
| **84** | *40* | 44,00 | 52,3810 | *35* | 49,00 | 58,3333 |
| **93** | *33* | 60,00 | 64,5161 | *22* | 71,00 | 76,3441 |
| **100** | *34* | 66,00 | 66,0000 | *23* | 77,00 | 77,0000 |
| **107** | *40* | 67,00 | 62,6168 | *27* | 80,00 | 74,7664 |
| **123** | *32* | 91,00 | 73,9837 | *18* | 105,00 | 85,3659 |
| **Promedios 16,4828** | | | **33,7313** |  | **19,6207** | **31,7139** |

*Tabla 3: resultados del set de prueba, iteración 1, probabilidades 50% y 70%.*

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Recuento humano** | **Iteración 7 / 50%** | |  | **Iteración 7 / 70%** | |  |
| Recuento predicción | Error absoluto | Error relativo | Recuento predicción | Error absoluto | Error relativo |
| **0** | *0* | 0,00 | 0,0000 | *0* | 0,00 | 0,0000 |
| **0** | *1* | 1,00 | 0,0000 | *0* | 0,00 | 0,0000 |
| **1** | *2* | 1,00 | 100,0000 | *1* | 0,00 | 0,0000 |
| **1** | *2* | 1,00 | 100,0000 | *1* | 0,00 | 0,0000 |
| **2** | *2* | 0,00 | 0,0000 | *2* | 0,00 | 0,0000 |
| **3** | *4* | 1,00 | 33,3333 | *3* | 0,00 | 0,0000 |
| **4** | *4* | 0,00 | 0,0000 | *3* | 1,00 | 25,0000 |
| **5** | *6* | 1,00 | 20,0000 | *5* | 0,00 | 0,0000 |
| **6** | *5* | 1,00 | 16,6667 | *5* | 1,00 | 16,6667 |
| **7** | *6* | 1,00 | 14,2857 | *6* | 1,00 | 14,2857 |
| **8** | *8* | 0,00 | 0,0000 | *8* | 0,00 | 0,0000 |
| **9** | *7* | 2,00 | 22,2222 | *7* | 2,00 | 22,2222 |
| **10** | *8* | 2,00 | 20,0000 | *8* | 2,00 | 20,0000 |
| **17** | *14* | 3,00 | 17,6471 | *14* | 3,00 | 17,6471 |
| **20** | *16* | 4,00 | 20,0000 | *14* | 6,00 | 30,0000 |
| **20** | *15* | 5,00 | 25,0000 | *14* | 6,00 | 30,0000 |
| **27** | *20* | 7,00 | 25,9259 | *20* | 7,00 | 25,9259 |
| **28** | *18* | 10,00 | 35,7143 | *17* | 11,00 | 39,2857 |
| **30** | *21* | 9,00 | 30,0000 | *19* | 11,00 | 36,6667 |
| **36** | *25* | 11,00 | 30,5556 | *21* | 15,00 | 41,6667 |
| **44** | *28* | 16,00 | 36,3636 | *19* | 25,00 | 56,8182 |
| **54** | *31* | 23,00 | 42,5926 | *24* | 30,00 | 55,5556 |
| **56** | *24* | 32,00 | 57,1429 | *18* | 38,00 | 67,8571 |
| **80** | *24* | 56,00 | 70,0000 | *20* | 60,00 | 75,0000 |
| **84** | *35* | 49,00 | 58,3333 | *24* | 60,00 | 71,4286 |
| **93** | *21* | 72,00 | 77,4194 | *15* | 78,00 | 83,8710 |
| **100** | *21* | 79,00 | 79,0000 | *10* | 90,00 | 90,0000 |
| **107** | *28* | 79,00 | 73,8318 | *16* | 91,00 | 85,0467 |
| **123** | *27* | 96,00 | 78,0488 | *10* | 113,00 | 91,8699 |
| **Promedios 19,3793** | | | **37,3822** |  | **22,4483** | **34,3729** |

*Tabla 4: resultados del set de prueba, iteración 7, probabilidades 50% y 70%.*

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Recuento humano** | **Iteración 9 / 50%** | |  | **Iteración 9 / 70%** | |  |
| Recuento predicción | Error absoluto | Error relativo | Recuento predicción | Error absoluto | Error relativo |
| 0 | *1* | 1,00 | 0,0000 | *0* | 0,00 | 0,0000 |
| 0 | *1* | 1,00 | 0,0000 | *1* | 1,00 | 0,0000 |
| 1 | *1* | 0,00 | 0,0000 | *1* | 0,00 | 0,0000 |
| 1 | *2* | 1,00 | 100,0000 | *1* | 0,00 | 0,0000 |
| 2 | *4* | 2,00 | 100,0000 | *2* | 0,00 | 0,0000 |
| 3 | *4* | 1,00 | 33,3333 | *3* | 0,00 | 0,0000 |
| 4 | *6* | 2,00 | 50,0000 | *3* | 1,00 | 25,0000 |
| 5 | *7* | 2,00 | 40,0000 | *5* | 0,00 | 0,0000 |
| 6 | *6* | 0,00 | 0,0000 | *6* | 0,00 | 0,0000 |
| 7 | *13* | 6,00 | 85,7143 | *12* | 5,00 | 71,4286 |
| 8 | *7* | 1,00 | 12,5000 | *7* | 1,00 | 12,5000 |
| 9 | *9* | 0,00 | 0,0000 | *7* | 2,00 | 22,2222 |
| 10 | *8* | 2,00 | 20,0000 | *7* | 3,00 | 30,0000 |
| 17 | *18* | 1,00 | 5,8824 | *16* | 1,00 | 5,8824 |
| 20 | *21* | 1,00 | 5,0000 | *16* | 4,00 | 20,0000 |
| 20 | *23* | 3,00 | 15,0000 | *17* | 3,00 | 15,0000 |
| 27 | *27* | 0,00 | 0,0000 | *24* | 3,00 | 11,1111 |
| 28 | *26* | 2,00 | 7,1429 | *22* | 6,00 | 21,4286 |
| 30 | *29* | 1,00 | 3,3333 | *24* | 6,00 | 20,0000 |
| 36 | *33* | 3,00 | 8,3333 | *29* | 7,00 | 19,4444 |
| 44 | *36* | 8,00 | 18,1818 | *31* | 13,00 | 29,5455 |
| 54 | *42* | 12,00 | 22,2222 | *34* | 20,00 | 37,0370 |
| 56 | *34* | 22,00 | 39,2857 | *30* | 26,00 | 46,4286 |
| 80 | *48* | 32,00 | 40,0000 | *33* | 47,00 | 58,7500 |
| 84 | *48* | 36,00 | 42,8571 | *43* | 41,00 | 48,8095 |
| 93 | *50* | 43,00 | 46,2366 | *36* | 57,00 | 61,2903 |
| 100 | *49* | 51,00 | 51,0000 | *35* | 65,00 | 65,0000 |
| 107 | *54* | 53,00 | 49,5327 | *37* | 70,00 | 65,4206 |
| 123 | *58* | 65,00 | 52,8455 | *47* | 76,00 | 61,7886 |
| **Promedios 12,1379** | | | **29,2552** |  | **15,7931** | **25,7961** |

*Tabla 5: resultados del set de prueba, iteración 9, probabilidades 50% y 70%.*