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%.*