Epoch 1/100

52/52 [==============================] - ETA: 0s - loss: 0.3130 - accuracy: 0.8670

Epoch 1: val\_loss improved from inf to 1.52779, saving model to C:\Users\User\Desktop\Matematyka stosowana - II stopień\III semestr\Uczenie ze wzmocnieniem i deeplearning\deep\_learning\Zadanie 1\KISS\models\val\_loss\weights-improvement-epoch001-loss1.528-acc0.500.hdf5

52/52 [==============================] - 145s 3s/step - loss: 0.3130 - accuracy: 0.8670 - val\_loss: 1.5278 - val\_accuracy: 0.5000

Epoch 2/100

52/52 [==============================] - ETA: 0s - loss: 0.3067 - accuracy: 0.8664

Epoch 2: val\_loss improved from 1.52779 to 1.50811, saving model to C:\Users\User\Desktop\Matematyka stosowana - II stopień\III semestr\Uczenie ze wzmocnieniem i deeplearning\deep\_learning\Zadanie 1\KISS\models\val\_loss\weights-improvement-epoch002-loss1.508-acc0.524.hdf5

52/52 [==============================] - 141s 3s/step - loss: 0.3067 - accuracy: 0.8664 - val\_loss: 1.5081 - val\_accuracy: 0.5243

Epoch 3/100

52/52 [==============================] - ETA: 0s - loss: 0.3127 - accuracy: 0.8548

Epoch 3: val\_loss did not improve from 1.50811

52/52 [==============================] - 140s 3s/step - loss: 0.3127 - accuracy: 0.8548 - val\_loss: 1.5338 - val\_accuracy: 0.4826

Epoch 4/100

52/52 [==============================] - ETA: 0s - loss: 0.2966 - accuracy: 0.8700

Epoch 4: val\_loss improved from 1.50811 to 1.33944, saving model to C:\Users\User\Desktop\Matematyka stosowana - II stopień\III semestr\Uczenie ze wzmocnieniem i deeplearning\deep\_learning\Zadanie 1\KISS\models\val\_loss\weights-improvement-epoch004-loss1.339-acc0.507.hdf5

52/52 [==============================] - 140s 3s/step - loss: 0.2966 - accuracy: 0.8700 - val\_loss: 1.3394 - val\_accuracy: 0.5069

Epoch 5/100

52/52 [==============================] - ETA: 0s - loss: 0.2890 - accuracy: 0.8780

Epoch 5: val\_loss did not improve from 1.33944

52/52 [==============================] - 137s 3s/step - loss: 0.2890 - accuracy: 0.8780 - val\_loss: 1.4247 - val\_accuracy: 0.5069

Epoch 6/100

52/52 [==============================] - ETA: 0s - loss: 0.2858 - accuracy: 0.8725

Epoch 6: val\_loss did not improve from 1.33944

52/52 [==============================] - 137s 3s/step - loss: 0.2858 - accuracy: 0.8725 - val\_loss: 1.4921 - val\_accuracy: 0.5139

Epoch 7/100

52/52 [==============================] - ETA: 0s - loss: 0.2750 - accuracy: 0.8804

Epoch 7: val\_loss did not improve from 1.33944

52/52 [==============================] - 137s 3s/step - loss: 0.2750 - accuracy: 0.8804 - val\_loss: 1.5071 - val\_accuracy: 0.5521

Epoch 8/100

52/52 [==============================] - ETA: 0s - loss: 0.3138 - accuracy: 0.8633

Epoch 8: val\_loss did not improve from 1.33944

52/52 [==============================] - 137s 3s/step - loss: 0.3138 - accuracy: 0.8633 - val\_loss: 1.5280 - val\_accuracy: 0.5417

Epoch 9/100

52/52 [==============================] - ETA: 0s - loss: 0.3412 - accuracy: 0.8615

Epoch 9: val\_loss improved from 1.33944 to 1.27072, saving model to C:\Users\User\Desktop\Matematyka stosowana - II stopień\III semestr\Uczenie ze wzmocnieniem i deeplearning\deep\_learning\Zadanie 1\KISS\models\val\_loss\weights-improvement-epoch009-loss1.271-acc0.559.hdf5

52/52 [==============================] - 138s 3s/step - loss: 0.3412 - accuracy: 0.8615 - val\_loss: 1.2707 - val\_accuracy: 0.5590

Epoch 10/100

52/52 [==============================] - ETA: 0s - loss: 0.2821 - accuracy: 0.8731

Epoch 10: val\_loss did not improve from 1.27072

52/52 [==============================] - 137s 3s/step - loss: 0.2821 - accuracy: 0.8731 - val\_loss: 1.6225 - val\_accuracy: 0.5417

Epoch 11/100

52/52 [==============================] - ETA: 0s - loss: 0.2672 - accuracy: 0.8841

Epoch 11: val\_loss did not improve from 1.27072

52/52 [==============================] - 137s 3s/step - loss: 0.2672 - accuracy: 0.8841 - val\_loss: 1.5269 - val\_accuracy: 0.5382

Epoch 12/100

52/52 [==============================] - ETA: 0s - loss: 0.2734 - accuracy: 0.8798

Epoch 12: val\_loss improved from 1.27072 to 1.23466, saving model to C:\Users\User\Desktop\Matematyka stosowana - II stopień\III semestr\Uczenie ze wzmocnieniem i deeplearning\deep\_learning\Zadanie 1\KISS\models\val\_loss\weights-improvement-epoch012-loss1.235-acc0.542.hdf5

52/52 [==============================] - 138s 3s/step - loss: 0.2734 - accuracy: 0.8798 - val\_loss: 1.2347 - val\_accuracy: 0.5417

Epoch 13/100

52/52 [==============================] - ETA: 0s - loss: 0.2781 - accuracy: 0.8816

Epoch 13: val\_loss did not improve from 1.23466

52/52 [==============================] - 138s 3s/step - loss: 0.2781 - accuracy: 0.8816 - val\_loss: 1.7348 - val\_accuracy: 0.5486

Epoch 14/100

52/52 [==============================] - ETA: 0s - loss: 0.2833 - accuracy: 0.8859

Epoch 14: val\_loss did not improve from 1.23466

52/52 [==============================] - 135s 3s/step - loss: 0.2833 - accuracy: 0.8859 - val\_loss: 1.9097 - val\_accuracy: 0.5174

Epoch 15/100

52/52 [==============================] - ETA: 0s - loss: 0.2775 - accuracy: 0.8920

Epoch 15: val\_loss did not improve from 1.23466

52/52 [==============================] - 135s 3s/step - loss: 0.2775 - accuracy: 0.8920 - val\_loss: 1.5380 - val\_accuracy: 0.4826

Epoch 16/100

52/52 [==============================] - ETA: 0s - loss: 0.2697 - accuracy: 0.8847

Epoch 16: val\_loss did not improve from 1.23466

52/52 [==============================] - 136s 3s/step - loss: 0.2697 - accuracy: 0.8847 - val\_loss: 1.9109 - val\_accuracy: 0.4896

Epoch 17/100

52/52 [==============================] - ETA: 0s - loss: 0.2791 - accuracy: 0.8749

Epoch 17: val\_loss did not improve from 1.23466

52/52 [==============================] - 137s 3s/step - loss: 0.2791 - accuracy: 0.8749 - val\_loss: 1.5978 - val\_accuracy: 0.4757

Epoch 18/100

52/52 [==============================] - ETA: 0s - loss: 0.2688 - accuracy: 0.8853

Epoch 18: val\_loss did not improve from 1.23466

52/52 [==============================] - 136s 3s/step - loss: 0.2688 - accuracy: 0.8853 - val\_loss: 1.6345 - val\_accuracy: 0.5451

Epoch 19/100

52/52 [==============================] - ETA: 0s - loss: 0.2767 - accuracy: 0.8780

Epoch 19: val\_loss did not improve from 1.23466

52/52 [==============================] - 136s 3s/step - loss: 0.2767 - accuracy: 0.8780 - val\_loss: 1.6263 - val\_accuracy: 0.5590

Epoch 20/100

52/52 [==============================] - ETA: 0s - loss: 0.2676 - accuracy: 0.8914

Epoch 20: val\_loss did not improve from 1.23466

52/52 [==============================] - 136s 3s/step - loss: 0.2676 - accuracy: 0.8914 - val\_loss: 1.6905 - val\_accuracy: 0.4931

Epoch 21/100

52/52 [==============================] - ETA: 0s - loss: 0.2846 - accuracy: 0.8804

Epoch 21: val\_loss did not improve from 1.23466

52/52 [==============================] - 136s 3s/step - loss: 0.2846 - accuracy: 0.8804 - val\_loss: 1.5803 - val\_accuracy: 0.5451

Epoch 22/100

52/52 [==============================] - ETA: 0s - loss: 0.2974 - accuracy: 0.8664

Epoch 22: val\_loss did not improve from 1.23466

52/52 [==============================] - 136s 3s/step - loss: 0.2974 - accuracy: 0.8664 - val\_loss: 1.4483 - val\_accuracy: 0.5208

Epoch 23/100

52/52 [==============================] - ETA: 0s - loss: 0.2475 - accuracy: 0.9048

Epoch 23: val\_loss did not improve from 1.23466

52/52 [==============================] - 136s 3s/step - loss: 0.2475 - accuracy: 0.9048 - val\_loss: 1.6921 - val\_accuracy: 0.5347

Epoch 24/100

52/52 [==============================] - ETA: 0s - loss: 0.2704 - accuracy: 0.8841

Epoch 24: val\_loss did not improve from 1.23466

52/52 [==============================] - 135s 3s/step - loss: 0.2704 - accuracy: 0.8841 - val\_loss: 1.7264 - val\_accuracy: 0.5104

Epoch 25/100

52/52 [==============================] - ETA: 0s - loss: 0.2568 - accuracy: 0.8908

Epoch 25: val\_loss did not improve from 1.23466

52/52 [==============================] - 136s 3s/step - loss: 0.2568 - accuracy: 0.8908 - val\_loss: 1.5053 - val\_accuracy: 0.5556

Epoch 26/100

52/52 [==============================] - ETA: 0s - loss: 0.2562 - accuracy: 0.8871

Epoch 26: val\_loss did not improve from 1.23466

52/52 [==============================] - 137s 3s/step - loss: 0.2562 - accuracy: 0.8871 - val\_loss: 1.5203 - val\_accuracy: 0.5139

Epoch 27/100

52/52 [==============================] - ETA: 0s - loss: 0.2198 - accuracy: 0.8993

Epoch 27: val\_loss did not improve from 1.23466

52/52 [==============================] - 138s 3s/step - loss: 0.2198 - accuracy: 0.8993 - val\_loss: 1.9163 - val\_accuracy: 0.5069

Epoch 28/100

52/52 [==============================] - ETA: 0s - loss: 0.2625 - accuracy: 0.8883

Epoch 28: val\_loss did not improve from 1.23466

52/52 [==============================] - 137s 3s/step - loss: 0.2625 - accuracy: 0.8883 - val\_loss: 1.8671 - val\_accuracy: 0.4931

Epoch 29/100

52/52 [==============================] - ETA: 0s - loss: 0.2328 - accuracy: 0.9024

Epoch 29: val\_loss did not improve from 1.23466

52/52 [==============================] - 136s 3s/step - loss: 0.2328 - accuracy: 0.9024 - val\_loss: 1.8132 - val\_accuracy: 0.4896

Epoch 30/100

52/52 [==============================] - ETA: 0s - loss: 0.2268 - accuracy: 0.9140

Epoch 30: val\_loss did not improve from 1.23466

52/52 [==============================] - 136s 3s/step - loss: 0.2268 - accuracy: 0.9140 - val\_loss: 1.9238 - val\_accuracy: 0.5278

Epoch 31/100

52/52 [==============================] - ETA: 0s - loss: 0.2566 - accuracy: 0.8914

Epoch 31: val\_loss did not improve from 1.23466

52/52 [==============================] - 138s 3s/step - loss: 0.2566 - accuracy: 0.8914 - val\_loss: 2.0622 - val\_accuracy: 0.5174

Epoch 32/100

52/52 [==============================] - ETA: 0s - loss: 0.2266 - accuracy: 0.9073

Epoch 32: val\_loss did not improve from 1.23466

52/52 [==============================] - 137s 3s/step - loss: 0.2266 - accuracy: 0.9073 - val\_loss: 2.0294 - val\_accuracy: 0.5104

Epoch 33/100

52/52 [==============================] - ETA: 0s - loss: 0.2246 - accuracy: 0.8975

Epoch 33: val\_loss did not improve from 1.23466

52/52 [==============================] - 137s 3s/step - loss: 0.2246 - accuracy: 0.8975 - val\_loss: 1.6646 - val\_accuracy: 0.5208

Epoch 34/100

52/52 [==============================] - ETA: 0s - loss: 0.2335 - accuracy: 0.9079

Epoch 34: val\_loss did not improve from 1.23466

52/52 [==============================] - 138s 3s/step - loss: 0.2335 - accuracy: 0.9079 - val\_loss: 1.8145 - val\_accuracy: 0.5556

Epoch 35/100

52/52 [==============================] - ETA: 0s - loss: 0.2472 - accuracy: 0.9036

Epoch 35: val\_loss did not improve from 1.23466

52/52 [==============================] - 138s 3s/step - loss: 0.2472 - accuracy: 0.9036 - val\_loss: 1.8494 - val\_accuracy: 0.5347

Epoch 36/100

52/52 [==============================] - ETA: 0s - loss: 0.2203 - accuracy: 0.9093

Epoch 36: val\_loss did not improve from 1.23466

52/52 [==============================] - 141s 3s/step - loss: 0.2203 - accuracy: 0.9093 - val\_loss: 2.0253 - val\_accuracy: 0.5035

Epoch 37/100

52/52 [==============================] - ETA: 0s - loss: 0.2222 - accuracy: 0.9048

Epoch 37: val\_loss did not improve from 1.23466

52/52 [==============================] - 140s 3s/step - loss: 0.2222 - accuracy: 0.9048 - val\_loss: 1.9525 - val\_accuracy: 0.5486

Epoch 38/100

52/52 [==============================] - ETA: 0s - loss: 0.2245 - accuracy: 0.9042

Epoch 38: val\_loss did not improve from 1.23466

52/52 [==============================] - 139s 3s/step - loss: 0.2245 - accuracy: 0.9042 - val\_loss: 1.8237 - val\_accuracy: 0.5139

Epoch 39/100

52/52 [==============================] - ETA: 0s - loss: 0.1893 - accuracy: 0.9219

Epoch 39: val\_loss did not improve from 1.23466

52/52 [==============================] - 139s 3s/step - loss: 0.1893 - accuracy: 0.9219 - val\_loss: 1.9917 - val\_accuracy: 0.5000

Epoch 40/100

52/52 [==============================] - ETA: 0s - loss: 0.2257 - accuracy: 0.9121

Epoch 40: val\_loss did not improve from 1.23466

52/52 [==============================] - 139s 3s/step - loss: 0.2257 - accuracy: 0.9121 - val\_loss: 1.9676 - val\_accuracy: 0.5139

Epoch 41/100

52/52 [==============================] - ETA: 0s - loss: 0.2030 - accuracy: 0.9152

Epoch 41: val\_loss did not improve from 1.23466

52/52 [==============================] - 139s 3s/step - loss: 0.2030 - accuracy: 0.9152 - val\_loss: 2.0760 - val\_accuracy: 0.5382

Epoch 42/100

52/52 [==============================] - ETA: 0s - loss: 0.2154 - accuracy: 0.9091

Epoch 42: val\_loss did not improve from 1.23466

52/52 [==============================] - 138s 3s/step - loss: 0.2154 - accuracy: 0.9091 - val\_loss: 1.6020 - val\_accuracy: 0.5139

Epoch 43/100

52/52 [==============================] - ETA: 0s - loss: 0.2182 - accuracy: 0.9056

Epoch 43: val\_loss did not improve from 1.23466

52/52 [==============================] - 141s 3s/step - loss: 0.2182 - accuracy: 0.9056 - val\_loss: 2.1281 - val\_accuracy: 0.4965

Epoch 44/100

52/52 [==============================] - ETA: 0s - loss: 0.2315 - accuracy: 0.9073

Epoch 44: val\_loss did not improve from 1.23466

52/52 [==============================] - 139s 3s/step - loss: 0.2315 - accuracy: 0.9073 - val\_loss: 2.0502 - val\_accuracy: 0.5556

Epoch 45/100

52/52 [==============================] - ETA: 0s - loss: 0.2210 - accuracy: 0.9097

Epoch 45: val\_loss did not improve from 1.23466

52/52 [==============================] - 139s 3s/step - loss: 0.2210 - accuracy: 0.9097 - val\_loss: 1.6955 - val\_accuracy: 0.5174

Epoch 46/100

52/52 [==============================] - ETA: 0s - loss: 0.2164 - accuracy: 0.9085

Epoch 46: val\_loss did not improve from 1.23466

52/52 [==============================] - 138s 3s/step - loss: 0.2164 - accuracy: 0.9085 - val\_loss: 1.7372 - val\_accuracy: 0.5903

Epoch 47/100

52/52 [==============================] - ETA: 0s - loss: 0.2213 - accuracy: 0.9158

Epoch 47: val\_loss did not improve from 1.23466

52/52 [==============================] - 139s 3s/step - loss: 0.2213 - accuracy: 0.9158 - val\_loss: 2.1104 - val\_accuracy: 0.4688

Epoch 48/100

52/52 [==============================] - ETA: 0s - loss: 0.2210 - accuracy: 0.9158

Epoch 48: val\_loss did not improve from 1.23466

52/52 [==============================] - 138s 3s/step - loss: 0.2210 - accuracy: 0.9158 - val\_loss: 1.8272 - val\_accuracy: 0.5451

Epoch 49/100

52/52 [==============================] - ETA: 0s - loss: 0.2253 - accuracy: 0.9121

Epoch 49: val\_loss did not improve from 1.23466

52/52 [==============================] - 138s 3s/step - loss: 0.2253 - accuracy: 0.9121 - val\_loss: 1.8062 - val\_accuracy: 0.5243

Epoch 50/100

52/52 [==============================] - ETA: 0s - loss: 0.2447 - accuracy: 0.9030

Epoch 50: val\_loss did not improve from 1.23466

52/52 [==============================] - 140s 3s/step - loss: 0.2447 - accuracy: 0.9030 - val\_loss: 1.7361 - val\_accuracy: 0.5069

Epoch 51/100

52/52 [==============================] - ETA: 0s - loss: 0.1931 - accuracy: 0.9189

Epoch 51: val\_loss did not improve from 1.23466

52/52 [==============================] - 139s 3s/step - loss: 0.1931 - accuracy: 0.9189 - val\_loss: 1.7778 - val\_accuracy: 0.5243

Epoch 52/100

52/52 [==============================] - ETA: 0s - loss: 0.2068 - accuracy: 0.9097

Epoch 52: val\_loss did not improve from 1.23466

52/52 [==============================] - 139s 3s/step - loss: 0.2068 - accuracy: 0.9097 - val\_loss: 1.9892 - val\_accuracy: 0.5000

Epoch 53/100

52/52 [==============================] - ETA: 0s - loss: 0.1922 - accuracy: 0.9280

Epoch 53: val\_loss did not improve from 1.23466

52/52 [==============================] - 139s 3s/step - loss: 0.1922 - accuracy: 0.9280 - val\_loss: 1.9425 - val\_accuracy: 0.4549

Epoch 54/100

52/52 [==============================] - ETA: 0s - loss: 0.2062 - accuracy: 0.9207

Epoch 54: val\_loss did not improve from 1.23466

52/52 [==============================] - 138s 3s/step - loss: 0.2062 - accuracy: 0.9207 - val\_loss: 1.9544 - val\_accuracy: 0.5174

Epoch 55/100

52/52 [==============================] - ETA: 0s - loss: 0.1939 - accuracy: 0.9158

Epoch 55: val\_loss did not improve from 1.23466

52/52 [==============================] - 139s 3s/step - loss: 0.1939 - accuracy: 0.9158 - val\_loss: 1.9087 - val\_accuracy: 0.5243

Epoch 56/100

52/52 [==============================] - ETA: 0s - loss: 0.1893 - accuracy: 0.9250

Epoch 56: val\_loss did not improve from 1.23466

52/52 [==============================] - 139s 3s/step - loss: 0.1893 - accuracy: 0.9250 - val\_loss: 1.9547 - val\_accuracy: 0.4965

Epoch 57/100

52/52 [==============================] - ETA: 0s - loss: 0.2142 - accuracy: 0.9024

Epoch 57: val\_loss did not improve from 1.23466

52/52 [==============================] - 138s 3s/step - loss: 0.2142 - accuracy: 0.9024 - val\_loss: 1.8579 - val\_accuracy: 0.5451

Epoch 58/100

52/52 [==============================] - ETA: 0s - loss: 0.1919 - accuracy: 0.9207

Epoch 58: val\_loss did not improve from 1.23466

52/52 [==============================] - 139s 3s/step - loss: 0.1919 - accuracy: 0.9207 - val\_loss: 2.2236 - val\_accuracy: 0.5069

Epoch 59/100

52/52 [==============================] - ETA: 0s - loss: 0.2379 - accuracy: 0.9067

Epoch 59: val\_loss did not improve from 1.23466

52/52 [==============================] - 140s 3s/step - loss: 0.2379 - accuracy: 0.9067 - val\_loss: 2.0970 - val\_accuracy: 0.5243

Epoch 60/100

52/52 [==============================] - ETA: 0s - loss: 0.2124 - accuracy: 0.9225

Epoch 60: val\_loss did not improve from 1.23466

52/52 [==============================] - 139s 3s/step - loss: 0.2124 - accuracy: 0.9225 - val\_loss: 1.9938 - val\_accuracy: 0.5104

Epoch 61/100

52/52 [==============================] - ETA: 0s - loss: 0.1965 - accuracy: 0.9201

Epoch 61: val\_loss did not improve from 1.23466

52/52 [==============================] - 139s 3s/step - loss: 0.1965 - accuracy: 0.9201 - val\_loss: 1.9263 - val\_accuracy: 0.5382

Epoch 62/100

52/52 [==============================] - ETA: 0s - loss: 0.1960 - accuracy: 0.9280

Epoch 62: val\_loss did not improve from 1.23466

52/52 [==============================] - 139s 3s/step - loss: 0.1960 - accuracy: 0.9280 - val\_loss: 1.7925 - val\_accuracy: 0.4896

Epoch 63/100

52/52 [==============================] - ETA: 0s - loss: 0.1976 - accuracy: 0.9189

Epoch 63: val\_loss did not improve from 1.23466

52/52 [==============================] - 140s 3s/step - loss: 0.1976 - accuracy: 0.9189 - val\_loss: 1.7110 - val\_accuracy: 0.5660

Epoch 64/100

52/52 [==============================] - ETA: 0s - loss: 0.1913 - accuracy: 0.9256

Epoch 64: val\_loss did not improve from 1.23466

52/52 [==============================] - 139s 3s/step - loss: 0.1913 - accuracy: 0.9256 - val\_loss: 2.2187 - val\_accuracy: 0.5243

Epoch 65/100

52/52 [==============================] - ETA: 0s - loss: 0.1991 - accuracy: 0.9250

Epoch 65: val\_loss did not improve from 1.23466

52/52 [==============================] - 140s 3s/step - loss: 0.1991 - accuracy: 0.9250 - val\_loss: 2.1198 - val\_accuracy: 0.5035

Epoch 66/100

52/52 [==============================] - ETA: 0s - loss: 0.1709 - accuracy: 0.9390

Epoch 66: val\_loss did not improve from 1.23466

52/52 [==============================] - 140s 3s/step - loss: 0.1709 - accuracy: 0.9390 - val\_loss: 1.8522 - val\_accuracy: 0.5417

Epoch 67/100

52/52 [==============================] - ETA: 0s - loss: 0.1543 - accuracy: 0.9372

Epoch 67: val\_loss did not improve from 1.23466

52/52 [==============================] - 138s 3s/step - loss: 0.1543 - accuracy: 0.9372 - val\_loss: 1.9062 - val\_accuracy: 0.4965

Epoch 68/100

52/52 [==============================] - ETA: 0s - loss: 0.1917 - accuracy: 0.9286

Epoch 68: val\_loss did not improve from 1.23466

52/52 [==============================] - 140s 3s/step - loss: 0.1917 - accuracy: 0.9286 - val\_loss: 2.1013 - val\_accuracy: 0.5278

Epoch 69/100

52/52 [==============================] - ETA: 0s - loss: 0.1623 - accuracy: 0.9323

Epoch 69: val\_loss did not improve from 1.23466

52/52 [==============================] - 137s 3s/step - loss: 0.1623 - accuracy: 0.9323 - val\_loss: 2.0957 - val\_accuracy: 0.5139

Epoch 70/100

52/52 [==============================] - ETA: 0s - loss: 0.1599 - accuracy: 0.9365

Epoch 70: val\_loss did not improve from 1.23466

52/52 [==============================] - 140s 3s/step - loss: 0.1599 - accuracy: 0.9365 - val\_loss: 1.9557 - val\_accuracy: 0.5243

Epoch 71/100

52/52 [==============================] - ETA: 0s - loss: 0.1739 - accuracy: 0.9304

Epoch 71: val\_loss did not improve from 1.23466

52/52 [==============================] - 139s 3s/step - loss: 0.1739 - accuracy: 0.9304 - val\_loss: 2.0840 - val\_accuracy: 0.5174

Epoch 72/100

52/52 [==============================] - ETA: 0s - loss: 0.1815 - accuracy: 0.9262

Epoch 72: val\_loss did not improve from 1.23466

52/52 [==============================] - 139s 3s/step - loss: 0.1815 - accuracy: 0.9262 - val\_loss: 2.3782 - val\_accuracy: 0.4896

Epoch 73/100

52/52 [==============================] - ETA: 0s - loss: 0.1686 - accuracy: 0.9351

Epoch 73: val\_loss did not improve from 1.23466

52/52 [==============================] - 140s 3s/step - loss: 0.1686 - accuracy: 0.9351 - val\_loss: 2.0975 - val\_accuracy: 0.5660

Epoch 74/100

52/52 [==============================] - ETA: 0s - loss: 0.1925 - accuracy: 0.9176

Epoch 74: val\_loss did not improve from 1.23466

52/52 [==============================] - 139s 3s/step - loss: 0.1925 - accuracy: 0.9176 - val\_loss: 2.0702 - val\_accuracy: 0.4861

Epoch 75/100

52/52 [==============================] - ETA: 0s - loss: 0.1654 - accuracy: 0.9408

Epoch 75: val\_loss did not improve from 1.23466

52/52 [==============================] - 139s 3s/step - loss: 0.1654 - accuracy: 0.9408 - val\_loss: 2.1921 - val\_accuracy: 0.4792

Epoch 76/100

52/52 [==============================] - ETA: 0s - loss: 0.1631 - accuracy: 0.9347

Epoch 76: val\_loss did not improve from 1.23466

52/52 [==============================] - 140s 3s/step - loss: 0.1631 - accuracy: 0.9347 - val\_loss: 1.8493 - val\_accuracy: 0.5278

Epoch 77/100

52/52 [==============================] - ETA: 0s - loss: 0.1842 - accuracy: 0.9353

Epoch 77: val\_loss did not improve from 1.23466

52/52 [==============================] - 139s 3s/step - loss: 0.1842 - accuracy: 0.9353 - val\_loss: 2.3662 - val\_accuracy: 0.4861

Epoch 78/100

52/52 [==============================] - ETA: 0s - loss: 0.1455 - accuracy: 0.9402

Epoch 78: val\_loss did not improve from 1.23466

52/52 [==============================] - 138s 3s/step - loss: 0.1455 - accuracy: 0.9402 - val\_loss: 2.5385 - val\_accuracy: 0.4896

Epoch 79/100

52/52 [==============================] - ETA: 0s - loss: 0.1489 - accuracy: 0.9439

Epoch 79: val\_loss did not improve from 1.23466

52/52 [==============================] - 138s 3s/step - loss: 0.1489 - accuracy: 0.9439 - val\_loss: 2.3180 - val\_accuracy: 0.4792

Epoch 80/100

52/52 [==============================] - ETA: 0s - loss: 0.1630 - accuracy: 0.9347

Epoch 80: val\_loss did not improve from 1.23466

52/52 [==============================] - 138s 3s/step - loss: 0.1630 - accuracy: 0.9347 - val\_loss: 2.2189 - val\_accuracy: 0.5000

Epoch 81/100

52/52 [==============================] - ETA: 0s - loss: 0.1830 - accuracy: 0.9231

Epoch 81: val\_loss did not improve from 1.23466

52/52 [==============================] - 138s 3s/step - loss: 0.1830 - accuracy: 0.9231 - val\_loss: 2.3482 - val\_accuracy: 0.4861

Epoch 82/100

52/52 [==============================] - ETA: 0s - loss: 0.1869 - accuracy: 0.9262

Epoch 82: val\_loss did not improve from 1.23466

52/52 [==============================] - 139s 3s/step - loss: 0.1869 - accuracy: 0.9262 - val\_loss: 2.0363 - val\_accuracy: 0.4896

Epoch 82: early stopping