

```
/Users/andrey/miniforge3/bin/python /Users/andrey/python/oleg-semenovich/
main.py
```

```
Found 21544 files belonging to 2 classes.
```

```
Using 19390 files for training.
```

```
Found 21544 files belonging to 2 classes.
```

```
Using 2154 files for validation.
```

```
Found 5069 files belonging to 2 classes.
```

```
Model: "sequential_1"
```

| Layer #         | (type)         | Output Shape        | Param |
|-----------------|----------------|---------------------|-------|
| conv2d          | (Conv2D)       | (None, 220, 220, 4) |       |
| 304             |                |                     |       |
| max_pooling2d   | (MaxPooling2D) | (None, 110, 110, 4) |       |
| 0               |                |                     |       |
| conv2d_1        | (Conv2D)       | (None, 106, 106, 8) |       |
| 808             |                |                     |       |
| max_pooling2d_1 | (MaxPooling2D) | (None, 53, 53, 8)   |       |
| 0               |                |                     |       |
| conv2d_2        | (Conv2D)       | (None, 49, 49, 16)  | 3,    |
| 216             |                |                     |       |
| max_pooling2d_2 | (MaxPooling2D) | (None, 24, 24, 16)  |       |
| 0               |                |                     |       |
| flatten         | (Flatten)      | (None, 9216)        |       |
| 0               |                |                     |       |
| dense           | (Dense)        | (None, 64)          | 589,  |
| 888             |                |                     |       |
| dense_1         | (Dense)        | (None, 32)          | 2,    |
| 080             |                |                     |       |
| dense_2         | (Dense)        | (None, 2)           |       |
| 66              |                |                     |       |

```
Total params: 596,362 (2.27 MB)
Trainable params: 596,362 (2.27 MB)
Non-trainable params: 0 (0.00 B)
Epoch 1/10
152/152 ————— 160s 1s/step - accuracy: 0.6488 - loss: 0.
6302 - precision: 0.6488 - val_accuracy: 0.6829 - val_loss: 0.5864 -
val_precision: 0.6829 - learning_rate: 0.1000
Epoch 2/10
152/152 ————— 158s 1s/step - accuracy: 0.6957 - loss: 0.
5867 - precision: 0.6957 - val_accuracy: 0.7061 - val_loss: 0.5755 -
val_precision: 0.7061 - learning_rate: 0.1000
Epoch 3/10
152/152 ————— 160s 1s/step - accuracy: 0.7189 - loss: 0.
5638 - precision: 0.7189 - val_accuracy: 0.7145 - val_loss: 0.5712 -
val_precision: 0.7145 - learning_rate: 0.1000
Epoch 4/10
152/152 ————— 163s 1s/step - accuracy: 0.7234 - loss: 0.
5529 - precision: 0.7234 - val_accuracy: 0.7210 - val_loss: 0.5622 -
val_precision: 0.7210 - learning_rate: 0.1000
Epoch 5/10
152/152 ————— 164s 1s/step - accuracy: 0.7234 - loss: 0.
5549 - precision: 0.7234 - val_accuracy: 0.7247 - val_loss: 0.5699 -
val_precision: 0.7247 - learning_rate: 0.1000
Epoch 6/10
152/152 ————— 157s 1s/step - accuracy: 0.7336 - loss: 0.
5367 - precision: 0.7336 - val_accuracy: 0.7117 - val_loss: 0.5583 -
val_precision: 0.7117 - learning_rate: 0.1000
Epoch 7/10
152/152 ————— 157s 1s/step - accuracy: 0.7557 - loss: 0.
5002 - precision: 0.7557 - val_accuracy: 0.6801 - val_loss: 0.5960 -
val_precision: 0.6801 - learning_rate: 0.1000
Epoch 8/10
152/152 ————— 158s 1s/step - accuracy: 0.7231 - loss: 0.
5411 - precision: 0.7231 - val_accuracy: 0.7075 - val_loss: 0.5853 -
val_precision: 0.7075 - learning_rate: 0.1000
Epoch 9/10
152/152 ————— 161s 1s/step - accuracy: 0.7693 - loss: 0.
4784 - precision: 0.7693 - val_accuracy: 0.6968 - val_loss: 0.5790 -
val_precision: 0.6968 - learning_rate: 0.1000
Epoch 10/10
152/152 ————— 163s 1s/step - accuracy: 0.7859 - loss: 0.
4504 - precision: 0.7859 - val_accuracy: 0.7057 - val_loss: 0.7792 -
val_precision: 0.7057 - learning_rate: 0.1000
40/40 ————— 14s 328ms/step - accuracy: 0.7185 - loss: 0.
5542 - precision: 0.7185
Test precision: 0.7161175608634949
Test accuracy: 0.7161175608634949

Process finished with exit code 0
```