```
D:\DeepFake\pythonProject1\.venv\Scripts\python.exe D:\DeepFake\pythonProject1\Main\main.py
2025-09-18 22:35:56.276843: I tensorflow/core/util/port.cc:153] oneDNN custom operations are on. You may see slightly different numerical results due to floating-point round-off errors from different computation orders. To turn them off, set the environment variable `TF_ENABLE_ONEDNN_OPTS=0`.
2025-09-18 22:35:59.312198: I tensorflow/core/util/port.cc:153] oneDNN custom operations are on. You may see slightly different numerical results due to floating-point round-off errors from different computation orders. To turn them off, set the environment variable `TF_ENABLE_ONEDNN_OPTS=0`.
Using TensorFlow 2.19.0
Config: {
  "model_name": "efficientnetb7",
  "data_dir": "D:/DeepFake/pythonProject1/Frames/FF/FF 600",
  "epochs": 20,
  "batch_size": 32,
  "seed": 42,
  "base_trainable_at": null,
  "warmup_epochs": 3,
  "learning_rate": 0.001,
  "fine_tune_lr": 0.0001,
  "use_class_weights": false,
  "mixed_precision": false,
  "output_dir": "D:/DeepFake/pythonProject1/Main/FF/efficientnetb7"
}
Found 60796 images belonging to 2 classes.
Found 13032 images belonging to 2 classes.
Found 13030 images belonging to 2 classes.
2025-09-18 22:36:10.626188: I tensorflow/core/platform/cpu_feature_guard.cc:210] This TensorFlow binary is optimized to use available CPU instructions in performance-critical operations.
To enable the following instructions: SSE3 SSE4.1 SSE4.2 AVX AVX2 AVX_VNNI FMA, in other operations, rebuild TensorFlow with the appropriate compiler
```

```
23 flags.
24 D:\DeepFake\pythonProject1\.venv\Lib\site-packages\
   keras\src\trainers\data_adapters\py_dataset_adapter.
   py:121: UserWarning: Your `PyDataset` class should
   call `super().__init__(**kwargs)` in its constructor
   . `**kwargs` can include `workers`, `
   use_multiprocessing`, `max_queue_size`. Do not pass
   these arguments to `fit()`, as they will be ignored.
25   self._warn_if_super_not_called()
26 Epoch 1/3
27 1900/1900 ━━━━━━━━━━━━━━━━━━━━ 0s 19s/step - accuracy
   : 0.8764 - loss: 0.3817
28 Epoch 1: val_accuracy improved from -inf to 0.87953,
   saving model to D:/DeepFake/pythonProject1/Main/FF/
   efficientnetb7\best_warmup.keras
29 1900/1900 ━━━━━━━━━━━━━━━━━━━━ 42508s 22s/step -
   accuracy: 0.8764 - loss: 0.3817 - val_accuracy: 0.
   8795 - val_loss: 0.3593 - learning_rate: 0.0010
30 Epoch 2/3
31 1900/1900 ━━━━━━━━━━━━━━━━━━━━ 0s 22s/step - accuracy
   : 0.8791 - loss: 0.3684
32 Epoch 2: val_accuracy improved from 0.87953 to 0.
   87983, saving model to D:/DeepFake/pythonProject1/
   Main/FF/efficientnetb7\best_warmup.keras
33 1900/1900 ━━━━━━━━━━━━━━━━━━━━ 48574s 26s/step -
   accuracy: 0.8791 - loss: 0.3684 - val_accuracy: 0.
   8798 - val_loss: 0.3601 - learning_rate: 0.0010
34 Epoch 3/3
35 1900/1900 ━━━━━━━━━━━━━━━━━━━━ 0s 19s/step - accuracy
   : 0.8816 - loss: 0.3650
36 Epoch 3: val_accuracy did not improve from 0.87983
37 1900/1900 ━━━━━━━━━━━━━━━━━━━━ 43075s 23s/step -
   accuracy: 0.8816 - loss: 0.3650 - val_accuracy: 0.
   8793 - val_loss: 0.3595 - learning_rate: 0.0010
38 Saved final model to: D:/DeepFake/pythonProject1/Main
   /FF/efficientnetb7\efficientnetb7.keras
39 Evaluating on test set...
40 408/408 ━━━━━━━━━━━━━━━━━━━━ 7074s 17s/step -
   accuracy: 0.9914 - loss: 0.1449
41 Test accuracy: 0.8817 | Test loss: 0.3592
42 408/408 ━━━━━━━━━━━━━━━━━━━━ 9480s 23s/step
```

```
43
44 Classification Report:
45
46               precision    recall  f1-score   support
47
48           df       0.88      1.00      0.94     11428
49         real       0.90      0.04      0.08      1602
50
51     accuracy                           0.88     13030
52    macro avg       0.89      0.52      0.51     13030
53 weighted avg       0.88      0.88      0.83     13030
54
55 Confusion Matrix:
56  [[11420     8]
57  [ 1533    69]]
58
59 Process finished with exit code 0
60
```