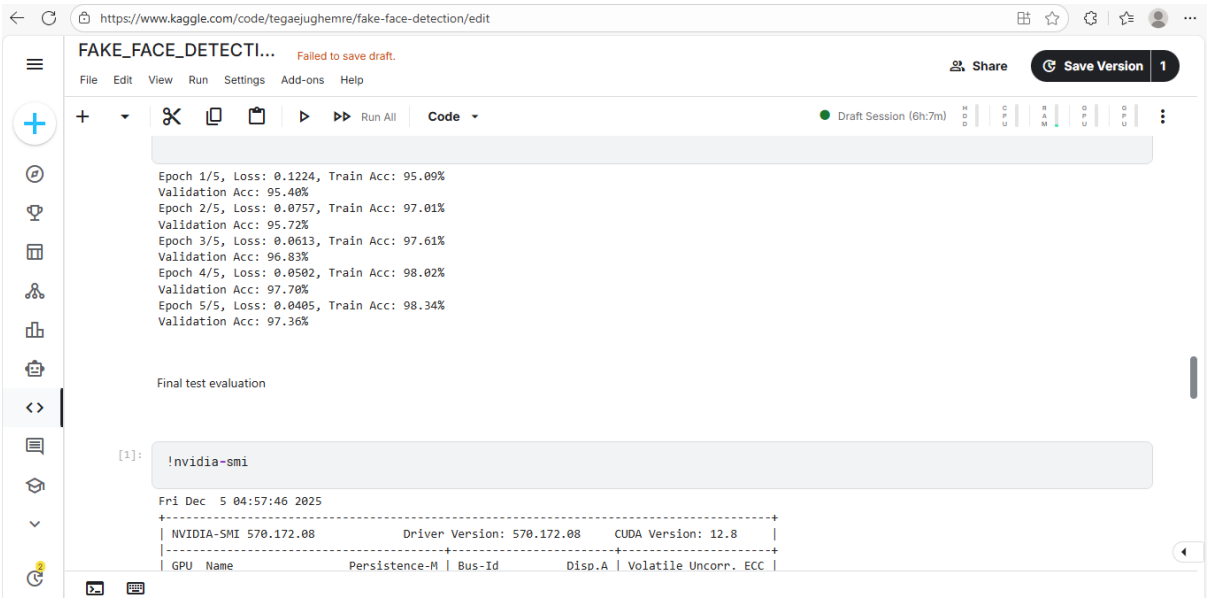
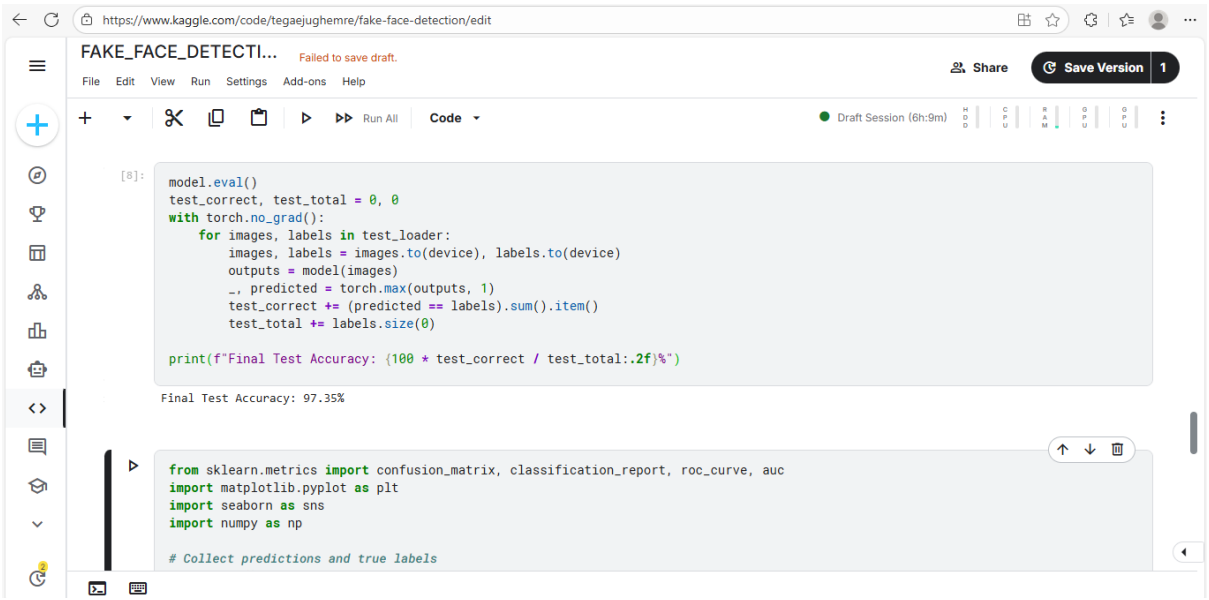

https://www.kaggle.com/code/tegaejughemre/fake-face-detection/edit
FAKE_FACE_DETECTI...
Failed to save draft.
File Edit View Run Settings Add-ons Help
Share
Save Version 1
Run All
Code
Draft Session (6h:7m)
Epoch 1/5, Loss: 0.1224, Train Acc: 95.09%
Validation Acc: 95.40%
Epoch 2/5, Loss: 0.0757, Train Acc: 97.01%
Validation Acc: 95.72%
Epoch 3/5, Loss: 0.0613, Train Acc: 97.61%
Validation Acc: 96.83%
Epoch 4/5, Loss: 0.0502, Train Acc: 98.02%
Validation Acc: 97.70%
Epoch 5/5, Loss: 0.0405, Train Acc: 98.34%
Validation Acc: 97.36%
Final test evaluation
[1]:
!nvidia-smi
Fri Dec 5 04:57:46 2025
| NVIDIA-SMI 570.172.08 Driver Version: 570.172.08 CUDA Version: 12.8 |
| GPU Name Persistence-M | Bus-Id Disp.A | Volatile Uncorr. ECC |


https://www.kaggle.com/code/tegaejughemre/fake-face-detection/edit
FAKE_FACE_DETECTI...
Failed to save draft.
File Edit View Run Settings Add-ons Help
Share
Save Version 1
Run All
Code
Draft Session (6h:9m)
[8]:
model.eval()
test_correct, test_total = 0, 0
with torch.no_grad():
for images, labels in test_loader:
images, labels = images.to(device), labels.to(device)
outputs = model(images)
_, predicted = torch.max(outputs, 1)
test_correct += (predicted == labels).sum().item()
test_total += labels.size(0)
print(f"Final Test Accuracy: {100 * test_correct / test_total:.2f}%")
Final Test Accuracy: 97.35%
from sklearn.metrics import confusion_matrix, classification_report, roc_curve, auc
import matplotlib.pyplot as plt
import seaborn as sns
import numpy as np
# Collect predictions and true labels

https://www.kaggle.com/code/tegaejughemre/fake-face-detection/edit

FAKE_FACE_DETECTI... Failed to save draft.

File Edit View Run Settings Add-ons Help

Share | Save Version 1

Cancel Run | Code | Draft Session (4h:31m)

```
            _, predicted = torch.max(outputs, 1)
            val_correct += (predicted == labels).sum().item()
            val_total += labels.size(0)
    val_acc = 100 * val_correct / val_total
    print(f"Validation Acc: {val_acc:.2f}%")
```

```
Epoch 1/5, Loss: 0.1224, Train Acc: 95.09%
Validation Acc: 95.40%
Epoch 2/5, Loss: 0.0757, Train Acc: 97.01%
Validation Acc: 95.72%
Epoch 3/5, Loss: 0.0613, Train Acc: 97.61%
Validation Acc: 96.83%
Epoch 4/5, Loss: 0.0502, Train Acc: 98.02%
Validation Acc: 97.70%
Epoch 5/5, Loss: 0.0405, Train Acc: 98.34%
Validation Acc: 97.36%
```

Final test evaluation

Notebook

Input

+ Add Input | Upload

DATASETS

final-dataset

Output (72KiB / 19.5GiB)

/kaggle/working

Table of contents

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FAKE_FACE_DETECTI... Failed to save draft.

File Edit View Run Settings Add-ons Help

Share | Save Version 1

Run All | Code | Draft Session (4h:40m)

```
+-----------------------------------------------------------------------------+
| Processes:                                                                  |
| GPU   GI   CI              PID   Type   Process name                        GPU Memory |
|       ID   ID                                                               Usage      |
|=============================================================================|
| No running processes found                                                  |
+-----------------------------------------------------------------------------+
```

+ Code + Markdown

```
model.eval()
test_correct, test_total = 0, 0
with torch.no_grad():
    for images, labels in test_loader:
        images, labels = images.to(device), labels.to(device)
        outputs = model(images)
        _, predicted = torch.max(outputs, 1)
        test_correct += (predicted == labels).sum().item()
        test_total += labels.size(0)

print(f"Final Test Accuracy: {100 * test_correct / test_total:.2f}%")
```

```
Final Test Accuracy: 97.35%
```

+ Code + Markdown

Notebook

Input

+ Add Input | Upload

DATASETS

final-dataset

Output (72KiB / 19.5GiB)

/kaggle/working

Table of contents

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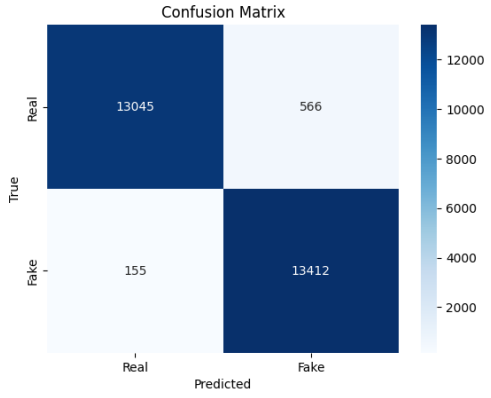
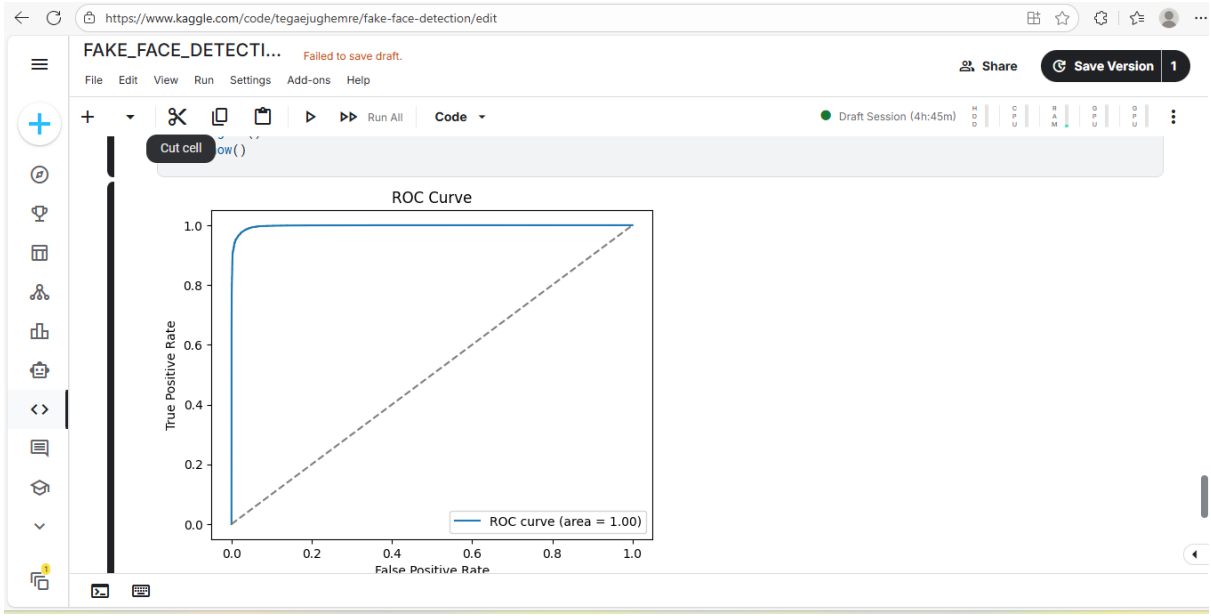
FAKE_FACE_DETECTI... Failed to save draft.

File Edit View Run Settings Add-ons Help

Share | Save Version 1

Run All | Code | Draft Session (4h:46m)




https://www.kaggle.com/code/tegaejughemre/fake-face-detection/edit
FAKE_FACE_DETECTI...
Failed to save draft.
File Edit View Run Settings Add-ons Help
Share
Save Version 1
Run All
Code
Draft Session (4h:45m)
Cut cell
ROC Curve
True Positive Rate
False Positive Rate
ROC curve (area = 1.00)
0.0
0.2
0.4
0.6
0.8
1.0