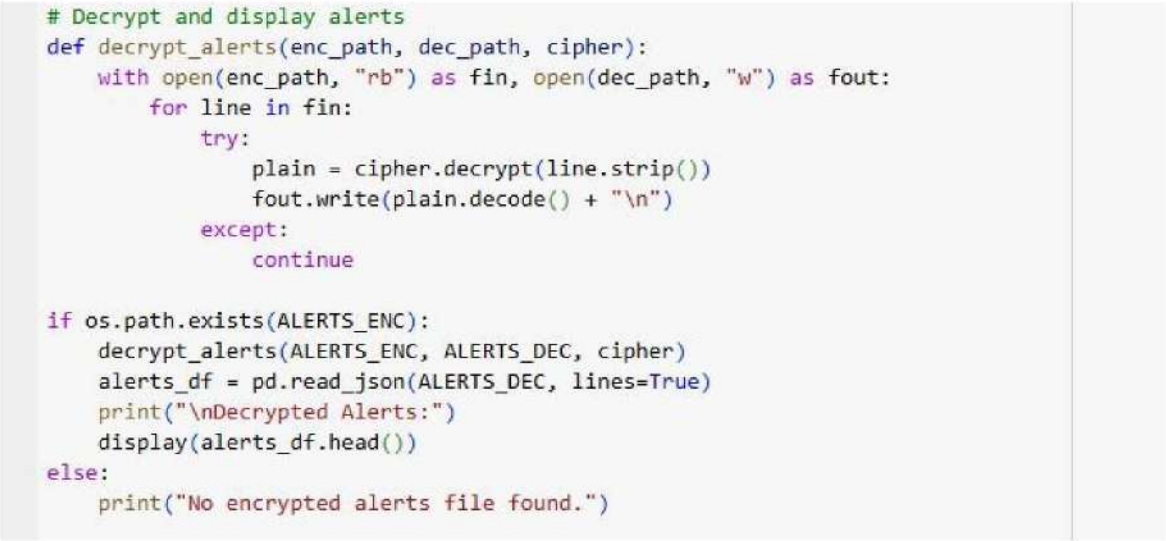
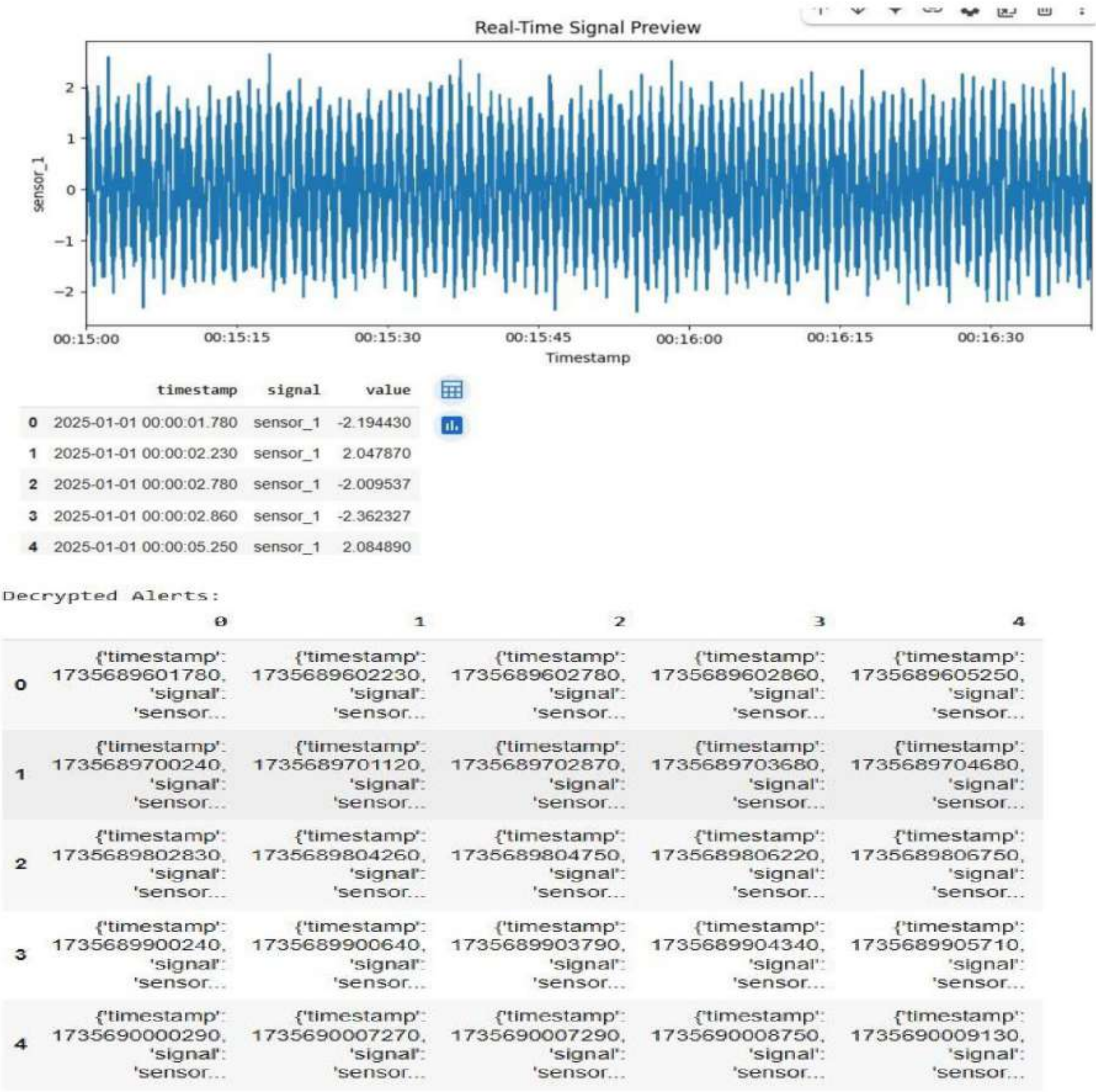


```
# Decrypt and display alerts
def decrypt_alerts(enc_path, dec_path, cipher):
    with open(enc_path, "rb") as fin, open(dec_path, "w") as fout:
        for line in fin:
            try:
                plain = cipher.decrypt(line.strip())
                fout.write(plain.decode() + "\n")
            except:
                continue

if os.path.exists(ALERTS_ENC):
    decrypt_alerts(ALERTS_ENC, ALERTS_DEC, cipher)
    alerts_df = pd.read_json(ALERTS_DEC, lines=True)
    print("\nDecrypted Alerts:")
    display(alerts_df.head())
else:
    print("No encrypted alerts file found.")
```

Output:

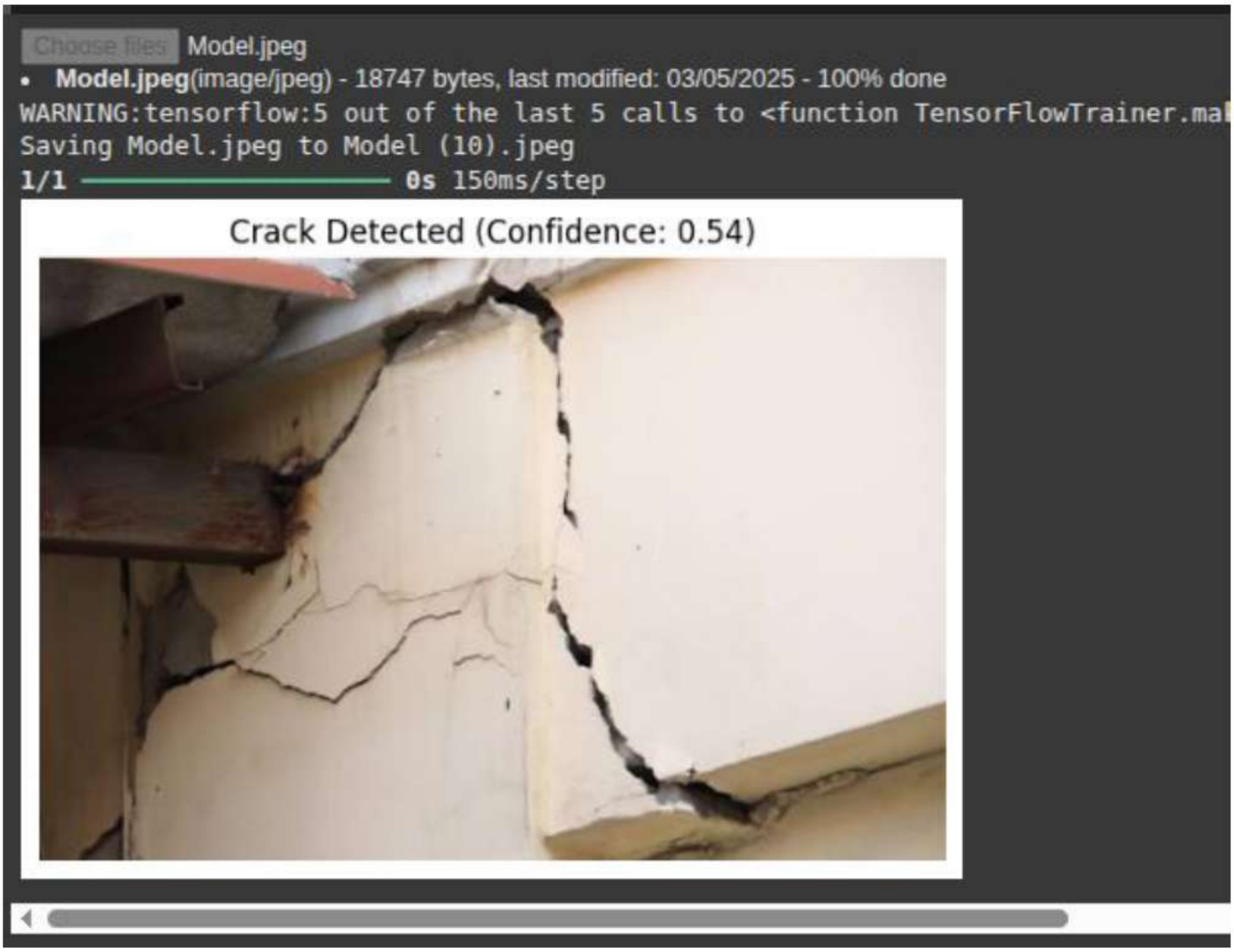


	timestamp	signal	value
0	2025-01-01 00:00:01.780	sensor_1	-2.194430
1	2025-01-01 00:00:02.230	sensor_1	2.047870
2	2025-01-01 00:00:02.780	sensor_1	-2.009537
3	2025-01-01 00:00:02.860	sensor_1	-2.362327
4	2025-01-01 00:00:05.250	sensor_1	2.084890

```
Decrypted Alerts:
```

	0	1	2	3	4
0	{'timestamp': 1735689601780, 'signal': 'sensor...	{'timestamp': 1735689602230, 'signal': 'sensor...	{'timestamp': 1735689602780, 'signal': 'sensor...	{'timestamp': 1735689602860, 'signal': 'sensor...	{'timestamp': 1735689605250, 'signal': 'sensor...
1	{'timestamp': 1735689700240, 'signal': 'sensor...	{'timestamp': 1735689701120, 'signal': 'sensor...	{'timestamp': 1735689702870, 'signal': 'sensor...	{'timestamp': 1735689703680, 'signal': 'sensor...	{'timestamp': 1735689704680, 'signal': 'sensor...
2	{'timestamp': 1735689802830, 'signal': 'sensor...	{'timestamp': 1735689804260, 'signal': 'sensor...	{'timestamp': 1735689804750, 'signal': 'sensor...	{'timestamp': 1735689806220, 'signal': 'sensor...	{'timestamp': 1735689806750, 'signal': 'sensor...
3	{'timestamp': 1735689900240, 'signal': 'sensor...	{'timestamp': 1735689900640, 'signal': 'sensor...	{'timestamp': 1735689903790, 'signal': 'sensor...	{'timestamp': 1735689904340, 'signal': 'sensor...	{'timestamp': 1735689905710, 'signal': 'sensor...
4	{'timestamp': 1735690000290, 'signal': 'sensor...	{'timestamp': 1735690007270, 'signal': 'sensor...	{'timestamp': 1735690007290, 'signal': 'sensor...	{'timestamp': 1735690008750, 'signal': 'sensor...	{'timestamp': 1735690009130, 'signal': 'sensor...

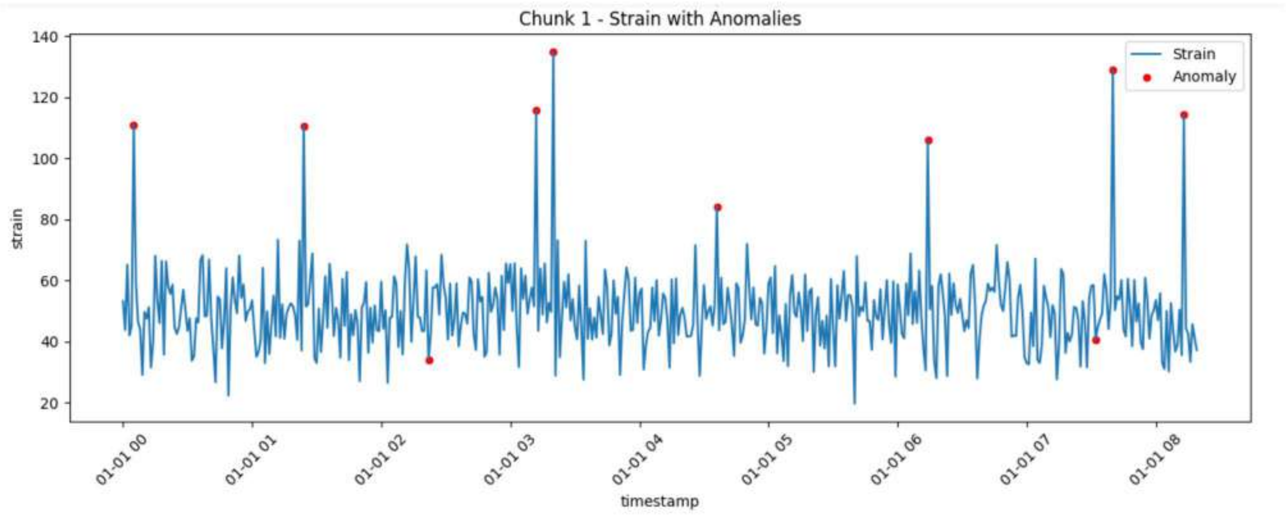
output:



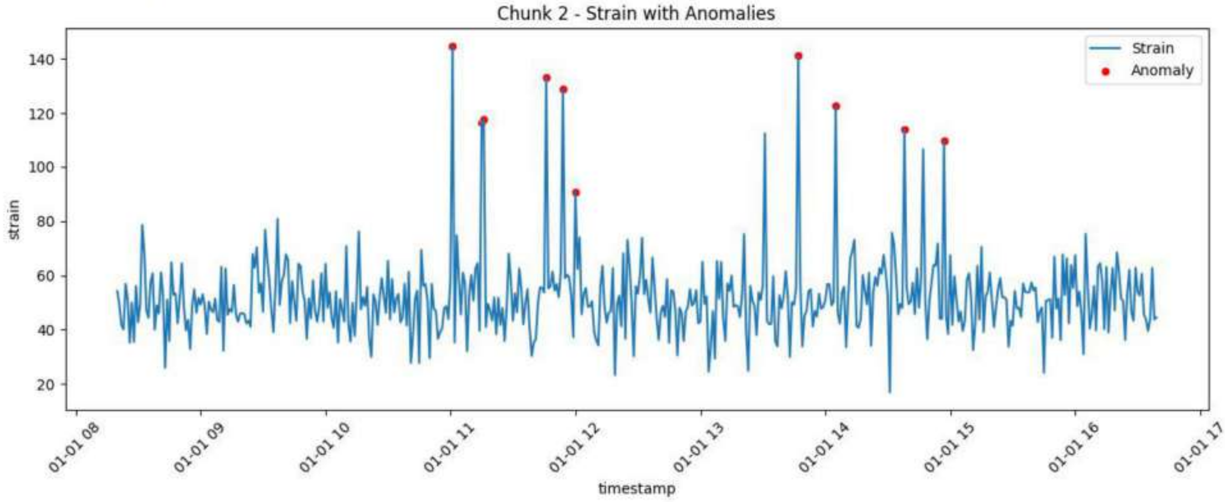
```
Model.jpeg
• Model.jpeg(image/jpeg) - 18747 bytes, last modified: 03/05/2025 - 100% done
WARNING:tensorflow:5 out of the last 5 calls to <function TensorFlowTrainer.ma
Saving Model.jpeg to Model (10).jpeg
1/1 ━━━━━━━━━━━━━━━━━━━━ 0s 150ms/step
```

Crack Detected (Confidence: 0.54)

Output:



```
Chunk 2: 10 anomalies detected
```


Chunk 2 - Strain with Anomalies
Strain
Anomaly
strain
timestamp