

# Deepfake Detection Report

**Video Name:** video02

## ===== Analysis Summary =====

**Video Path:** D:\Projects\Final Yr Proj\phase 1 project\MMNet-deepfake-detection\Proj\backend\uploads\video02.mp4  
**Model Used:** ./fake\_audio\_detector.pth

**Audio Fake Probability:** 0.0000  
**Lip Sync Manipulation Probability:** 0.5437  
**Video Artifact (MMNet) Probability:** 0.9715

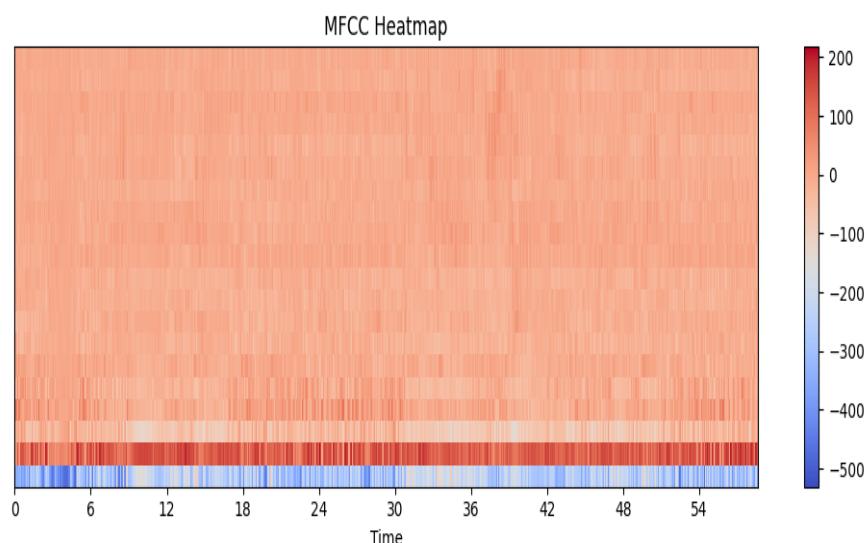
**Final Fake Probability:** 0.2603

**Authenticity Score:** 0.7397

**Total Suspicious Frames:** 215

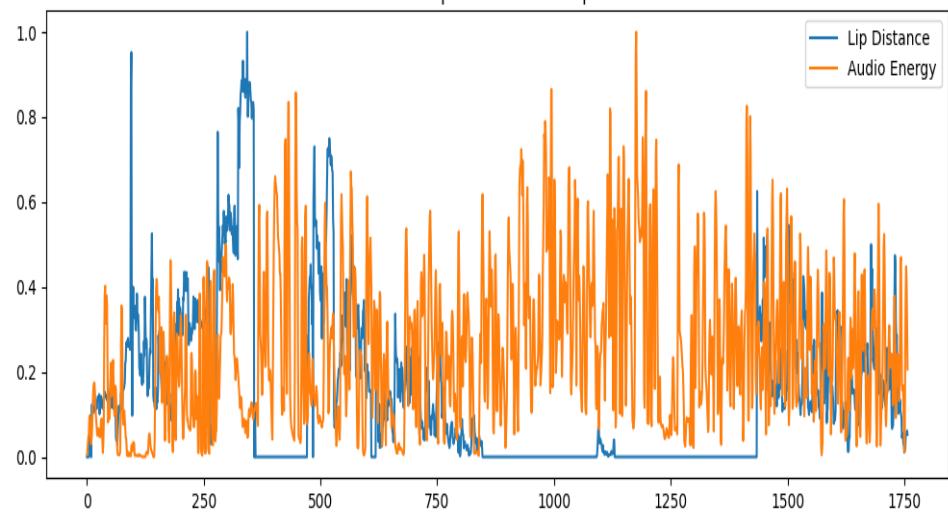
**Final Verdict:** LOW OVERALL SCORE, BUT MULTIPLE SUSPICIOUS FRAMES DETECTED

## MFCC Heatmap Analysis



## Lip Sync vs Audio Energy

Audio vs Lip Movement Comparison



### ===== Frame-Level Detection =====

**Frame: 5**

**Timestamp: 0.17 sec**

**Fake Score: 0.98**



**Frame: 70**

**Timestamp: 2.33 sec**

**Fake Score: 0.982**



**Frame: 75**

**Timestamp: 2.5 sec**

**Fake Score: 0.974**



**Frame: 80**

**Timestamp: 2.67 sec**

**Fake Score: 0.974**



**Frame: 85**

**Timestamp:** 2.83 sec

**Fake Score:** 0.975



**Frame: 95**

**Timestamp:** 3.17 sec

**Fake Score:** 0.996



**Frame: 125**

**Timestamp:** 4.17 sec

**Fake Score:** 0.992



**Frame: 130**

**Timestamp:** 4.33 sec

**Fake Score:** 0.986



**Frame: 135**

**Timestamp:** 4.5 sec

**Fake Score:** 0.985



**Frame: 140**

**Timestamp:** 4.67 sec

**Fake Score:** 0.983



**Frame:** 145  
**Timestamp:** 4.83 sec  
**Fake Score:** 0.984



**Frame:** 150  
**Timestamp:** 5.0 sec  
**Fake Score:** 0.998



**Frame:** 155  
**Timestamp:** 5.17 sec  
**Fake Score:** 0.996



**Frame:** 160  
**Timestamp:** 5.33 sec  
**Fake Score:** 0.995



**Frame:** 175  
**Timestamp:** 5.83 sec  
**Fake Score:** 0.996



**Frame:** 185  
**Timestamp:** 6.17 sec  
**Fake Score:** 0.994



**Frame:** 190

**Timestamp:** 6.33 sec

**Fake Score:** 0.991



**Frame:** 265

**Timestamp:** 8.83 sec

**Fake Score:** 0.966



**Frame:** 270

**Timestamp:** 9.0 sec

**Fake Score:** 0.967



**Frame:** 275

**Timestamp:** 9.17 sec

**Fake Score:** 0.966



**Frame:** 280

**Timestamp:** 9.33 sec

**Fake Score:** 0.966



**Frame:** 285

**Timestamp:** 9.5 sec

**Fake Score:** 0.966



**Frame:** 365

**Timestamp:** 12.17 sec

**Fake Score:** 0.972



**Frame:** 370

**Timestamp:** 12.33 sec

**Fake Score:** 0.972



**Frame:** 375

**Timestamp:** 12.5 sec

**Fake Score:** 0.972



**Frame:** 380

**Timestamp:** 12.67 sec

**Fake Score:** 0.972



**Frame:** 385

**Timestamp:** 12.83 sec

**Fake Score:** 0.973



**Frame:** 390

**Timestamp:** 13.0 sec

**Fake Score:** 0.974



**Frame:** 395

**Timestamp:** 13.17 sec

**Fake Score:** 0.973



**Frame:** 400

**Timestamp:** 13.33 sec

**Fake Score:** 0.973



**Frame:** 410

**Timestamp:** 13.67 sec

**Fake Score:** 0.973



**Frame:** 415

**Timestamp:** 13.83 sec

**Fake Score:** 0.974



**Frame:** 425

**Timestamp:** 14.17 sec

**Fake Score:** 0.972



**Frame:** 430

**Timestamp:** 14.33 sec

**Fake Score:** 0.973



**Frame: 435**

**Timestamp: 14.5 sec**

**Fake Score: 0.971**



**Frame: 440**

**Timestamp: 14.67 sec**

**Fake Score: 0.971**



**Frame: 445**

**Timestamp: 14.83 sec**

**Fake Score: 0.971**



**Frame: 450**

**Timestamp: 15.0 sec**

**Fake Score: 0.971**



**Frame: 455**

**Timestamp: 15.17 sec**

**Fake Score: 0.972**



**Frame: 460**

**Timestamp: 15.33 sec**

**Fake Score: 0.971**



**Frame:** 465

**Timestamp:** 15.5 sec

**Fake Score:** 0.971



**Frame:** 475

**Timestamp:** 15.83 sec

**Fake Score:** 0.97



**Frame:** 525

**Timestamp:** 17.5 sec

**Fake Score:** 0.975



**Frame:** 555

**Timestamp:** 18.5 sec

**Fake Score:** 0.987



**Frame:** 565

**Timestamp:** 18.83 sec

**Fake Score:** 0.989



**Frame:** 570

**Timestamp:** 19.0 sec

**Fake Score:** 0.988



**Frame: 585**  
**Timestamp: 19.5 sec**  
**Fake Score: 0.989**



**Frame: 590**  
**Timestamp: 19.67 sec**  
**Fake Score: 0.989**



**Frame: 595**  
**Timestamp: 19.83 sec**  
**Fake Score: 0.99**



**Frame: 600**  
**Timestamp: 20.0 sec**  
**Fake Score: 0.99**



**Frame: 610**  
**Timestamp: 20.33 sec**  
**Fake Score: 0.974**



**Frame: 615**  
**Timestamp: 20.5 sec**  
**Fake Score: 0.975**



**Frame:** 620

**Timestamp:** 20.67 sec

**Fake Score:** 0.977



**Frame:** 630

**Timestamp:** 21.0 sec

**Fake Score:** 0.976



**Frame:** 635

**Timestamp:** 21.17 sec

**Fake Score:** 0.974



**Frame:** 640

**Timestamp:** 21.33 sec

**Fake Score:** 0.973



**Frame:** 650

**Timestamp:** 21.67 sec

**Fake Score:** 0.972



**Frame:** 665

**Timestamp:** 22.17 sec

**Fake Score:** 0.969



**Frame:** 670

**Timestamp:** 22.33 sec

**Fake Score:** 0.97



**Frame:** 675

**Timestamp:** 22.5 sec

**Fake Score:** 0.972



**Frame:** 680

**Timestamp:** 22.67 sec

**Fake Score:** 0.972



**Frame:** 685

**Timestamp:** 22.83 sec

**Fake Score:** 0.972



**Frame:** 690

**Timestamp:** 23.0 sec

**Fake Score:** 0.971



**Frame:** 695

**Timestamp:** 23.17 sec

**Fake Score:** 0.972



**Frame:** 700

**Timestamp:** 23.33 sec

**Fake Score:** 0.972



**Frame:** 705

**Timestamp:** 23.5 sec

**Fake Score:** 0.967



**Frame:** 710

**Timestamp:** 23.67 sec

**Fake Score:** 0.968



**Frame:** 735

**Timestamp:** 24.5 sec

**Fake Score:** 0.97



**Frame:** 760

**Timestamp:** 25.33 sec

**Fake Score:** 0.97



**Frame:** 765

**Timestamp:** 25.5 sec

**Fake Score:** 0.97



**Frame:** 770

**Timestamp:** 25.67 sec

**Fake Score:** 0.97



**Frame:** 775

**Timestamp:** 25.83 sec

**Fake Score:** 0.97



**Frame:** 790

**Timestamp:** 26.33 sec

**Fake Score:** 0.969



**Frame:** 800

**Timestamp:** 26.67 sec

**Fake Score:** 0.968



**Frame:** 805

**Timestamp:** 26.83 sec

**Fake Score:** 0.968



**Frame:** 810

**Timestamp:** 27.0 sec

**Fake Score:** 0.969



**Frame:** 815

**Timestamp:** 27.17 sec

**Fake Score:** 0.969



**Frame:** 820

**Timestamp:** 27.33 sec

**Fake Score:** 0.968



**Frame:** 830

**Timestamp:** 27.67 sec

**Fake Score:** 0.969



**Frame:** 835

**Timestamp:** 27.83 sec

**Fake Score:** 0.969



**Frame:** 840

**Timestamp:** 28.0 sec

**Fake Score:** 0.97



**Frame:** 845

**Timestamp:** 28.17 sec

**Fake Score:** 0.97



**Frame:** 850

**Timestamp:** 28.33 sec

**Fake Score:** 0.951



**Frame:** 855

**Timestamp:** 28.5 sec

**Fake Score:** 0.95



**Frame:** 860

**Timestamp:** 28.67 sec

**Fake Score:** 0.95



**Frame:** 865

**Timestamp:** 28.83 sec

**Fake Score:** 0.95



**Frame:** 870

**Timestamp:** 29.0 sec

**Fake Score:** 0.95



**Frame:** 875

**Timestamp:** 29.17 sec

**Fake Score:** 0.95



**Frame:** 880

**Timestamp:** 29.33 sec

**Fake Score:** 0.947



**Frame:** 885

**Timestamp:** 29.5 sec

**Fake Score:** 0.947



**Frame:** 890

**Timestamp:** 29.67 sec

**Fake Score:** 0.947



**Frame:** 895

**Timestamp:** 29.83 sec

**Fake Score:** 0.947



**Frame:** 900

**Timestamp:** 30.0 sec

**Fake Score:** 0.947



**Frame:** 905

**Timestamp:** 30.17 sec

**Fake Score:** 0.947



**Frame:** 910

**Timestamp:** 30.33 sec

**Fake Score:** 0.947



**Frame:** 915

**Timestamp:** 30.5 sec

**Fake Score:** 0.947



**Frame:** 920

**Timestamp:** 30.67 sec

**Fake Score:** 0.947



**Frame:** 925

**Timestamp:** 30.83 sec

**Fake Score:** 0.947



**Frame:** 930

**Timestamp:** 31.0 sec

**Fake Score:** 0.947



**Frame:** 935

**Timestamp:** 31.17 sec

**Fake Score:** 0.948



**Frame:** 940

**Timestamp:** 31.33 sec

**Fake Score:** 0.947



**Frame:** 945

**Timestamp:** 31.5 sec

**Fake Score:** 0.947



**Frame:** 950

**Timestamp:** 31.67 sec

**Fake Score:** 0.947



**Frame:** 955

**Timestamp:** 31.83 sec

**Fake Score:** 0.947



**Frame:** 960

**Timestamp:** 32.0 sec

**Fake Score:** 0.947



**Frame:** 965

**Timestamp:** 32.17 sec

**Fake Score:** 0.947



**Frame:** 970

**Timestamp:** 32.33 sec

**Fake Score:** 0.947



**Frame:** 975

**Timestamp:** 32.5 sec

**Fake Score:** 0.947



**Frame:** 980

**Timestamp:** 32.67 sec

**Fake Score:** 0.947



**Frame:** 985

**Timestamp:** 32.83 sec

**Fake Score:** 0.979



**Frame:** 995

**Timestamp:** 33.17 sec

**Fake Score:** 0.978



**Frame:** 1000

**Timestamp:** 33.33 sec

**Fake Score:** 0.978



**Frame:** 1005

**Timestamp:** 33.5 sec

**Fake Score:** 0.975



**Frame:** 1010

**Timestamp:** 33.67 sec

**Fake Score:** 0.976



**Frame:** 1015

**Timestamp:** 33.83 sec

**Fake Score:** 0.98



**Frame:** 1020

**Timestamp:** 34.0 sec

**Fake Score:** 0.978



**Frame:** 1025

**Timestamp:** 34.17 sec

**Fake Score:** 0.978



**Frame:** 1030

**Timestamp:** 34.33 sec

**Fake Score:** 0.973



**Frame:** 1035  
**Timestamp:** 34.5 sec  
**Fake Score:** 0.976



**Frame:** 1045  
**Timestamp:** 34.83 sec  
**Fake Score:** 0.976



**Frame:** 1055  
**Timestamp:** 35.17 sec  
**Fake Score:** 0.97



**Frame:** 1060  
**Timestamp:** 35.33 sec  
**Fake Score:** 0.974



**Frame:** 1065  
**Timestamp:** 35.5 sec  
**Fake Score:** 0.973



**Frame:** 1070  
**Timestamp:** 35.67 sec  
**Fake Score:** 0.973



**Frame:** 1075

**Timestamp:** 35.83 sec

**Fake Score:** 0.973



**Frame:** 1080

**Timestamp:** 36.0 sec

**Fake Score:** 0.973



**Frame:** 1085

**Timestamp:** 36.17 sec

**Fake Score:** 0.973



**Frame:** 1090

**Timestamp:** 36.33 sec

**Fake Score:** 0.973



**Frame:** 1095

**Timestamp:** 36.5 sec

**Fake Score:** 0.975



**Frame:** 1100

**Timestamp:** 36.67 sec

**Fake Score:** 0.973



**Frame: 1105**  
**Timestamp:** 36.83 sec  
**Fake Score:** 0.968



**Frame: 1110**  
**Timestamp:** 37.0 sec  
**Fake Score:** 0.969



**Frame: 1115**  
**Timestamp:** 37.17 sec  
**Fake Score:** 0.968



**Frame: 1120**  
**Timestamp:** 37.33 sec  
**Fake Score:** 0.967



**Frame: 1125**  
**Timestamp:** 37.5 sec  
**Fake Score:** 0.968



**Frame: 1130**  
**Timestamp:** 37.67 sec  
**Fake Score:** 0.968



**Frame:** 1135

**Timestamp:** 37.83 sec

**Fake Score:** 0.953



**Frame:** 1140

**Timestamp:** 38.0 sec

**Fake Score:** 0.952



**Frame:** 1145

**Timestamp:** 38.17 sec

**Fake Score:** 0.952



**Frame:** 1150

**Timestamp:** 38.33 sec

**Fake Score:** 0.952



**Frame:** 1155

**Timestamp:** 38.5 sec

**Fake Score:** 0.952



**Frame:** 1160

**Timestamp:** 38.67 sec

**Fake Score:** 0.952



**Frame:** 1165

**Timestamp:** 38.83 sec

**Fake Score:** 0.952



**Frame:** 1170

**Timestamp:** 39.0 sec

**Fake Score:** 0.952



**Frame:** 1175

**Timestamp:** 39.17 sec

**Fake Score:** 0.952



**Frame:** 1180

**Timestamp:** 39.33 sec

**Fake Score:** 0.952



**Frame:** 1185

**Timestamp:** 39.5 sec

**Fake Score:** 0.952



**Frame:** 1190

**Timestamp:** 39.67 sec

**Fake Score:** 0.952



**Frame:** 1195

**Timestamp:** 39.83 sec

**Fake Score:** 0.952



**Frame:** 1200

**Timestamp:** 40.0 sec

**Fake Score:** 0.951



**Frame:** 1205

**Timestamp:** 40.17 sec

**Fake Score:** 0.951



**Frame:** 1210

**Timestamp:** 40.33 sec

**Fake Score:** 0.951



**Frame:** 1215

**Timestamp:** 40.5 sec

**Fake Score:** 0.951



**Frame:** 1220

**Timestamp:** 40.67 sec

**Fake Score:** 0.951



**Frame:** 1225

**Timestamp:** 40.83 sec

**Fake Score:** 0.951



**Frame:** 1230

**Timestamp:** 41.0 sec

**Fake Score:** 0.95



**Frame:** 1235

**Timestamp:** 41.17 sec

**Fake Score:** 0.95



**Frame:** 1240

**Timestamp:** 41.33 sec

**Fake Score:** 0.95



**Frame:** 1245

**Timestamp:** 41.5 sec

**Fake Score:** 0.95



**Frame:** 1250

**Timestamp:** 41.67 sec

**Fake Score:** 0.95



**Frame:** 1255

**Timestamp:** 41.83 sec

**Fake Score:** 0.95



**Frame:** 1260

**Timestamp:** 42.0 sec

**Fake Score:** 0.95



**Frame:** 1265

**Timestamp:** 42.17 sec

**Fake Score:** 0.95



**Frame:** 1270

**Timestamp:** 42.33 sec

**Fake Score:** 0.95



**Frame:** 1275

**Timestamp:** 42.5 sec

**Fake Score:** 0.95



**Frame:** 1280

**Timestamp:** 42.67 sec

**Fake Score:** 0.949



**Frame:** 1285

**Timestamp:** 42.83 sec

**Fake Score:** 0.949



**Frame:** 1290

**Timestamp:** 43.0 sec

**Fake Score:** 0.948



**Frame:** 1295

**Timestamp:** 43.17 sec

**Fake Score:** 0.948



**Frame:** 1300

**Timestamp:** 43.33 sec

**Fake Score:** 0.948



**Frame:** 1305

**Timestamp:** 43.5 sec

**Fake Score:** 0.948



**Frame:** 1310

**Timestamp:** 43.67 sec

**Fake Score:** 0.948



**Frame:** 1315

**Timestamp:** 43.83 sec

**Fake Score:** 0.948



**Frame:** 1320

**Timestamp:** 44.0 sec

**Fake Score:** 0.947



**Frame:** 1325

**Timestamp:** 44.17 sec

**Fake Score:** 0.947



**Frame:** 1330

**Timestamp:** 44.33 sec

**Fake Score:** 0.947



**Frame:** 1335

**Timestamp:** 44.5 sec

**Fake Score:** 0.947



**Frame:** 1340

**Timestamp:** 44.67 sec

**Fake Score:** 0.947



**Frame:** 1345

**Timestamp:** 44.83 sec

**Fake Score:** 0.948



**Frame:** 1350

**Timestamp:** 45.0 sec

**Fake Score:** 0.947



**Frame:** 1355

**Timestamp:** 45.17 sec

**Fake Score:** 0.947



**Frame:** 1360

**Timestamp:** 45.33 sec

**Fake Score:** 0.947



**Frame:** 1365

**Timestamp:** 45.5 sec

**Fake Score:** 0.947



**Frame:** 1370

**Timestamp:** 45.67 sec

**Fake Score:** 0.947



**Frame:** 1375

**Timestamp:** 45.83 sec

**Fake Score:** 0.948



**Frame:** 1380

**Timestamp:** 46.0 sec

**Fake Score:** 0.948



**Frame:** 1385

**Timestamp:** 46.17 sec

**Fake Score:** 0.948



**Frame:** 1390

**Timestamp:** 46.33 sec

**Fake Score:** 0.948



**Frame:** 1395

**Timestamp:** 46.5 sec

**Fake Score:** 0.948



**Frame:** 1400

**Timestamp:** 46.67 sec

**Fake Score:** 0.948



**Frame:** 1405

**Timestamp:** 46.83 sec

**Fake Score:** 0.948



**Frame:** 1410

**Timestamp:** 47.0 sec

**Fake Score:** 0.946



**Frame:** 1415

**Timestamp:** 47.17 sec

**Fake Score:** 0.946



**Frame:** 1420

**Timestamp:** 47.33 sec

**Fake Score:** 0.946



**Frame:** 1425

**Timestamp:** 47.5 sec

**Fake Score:** 0.946



**Frame:** 1430

**Timestamp:** 47.67 sec

**Fake Score:** 0.946



**Frame:** 1435

**Timestamp:** 47.83 sec

**Fake Score:** 0.946



**Frame:** 1480

**Timestamp:** 49.33 sec

**Fake Score:** 0.993



**Frame:** 1485

**Timestamp:** 49.5 sec

**Fake Score:** 0.993



**Frame:** 1530

**Timestamp:** 51.0 sec

**Fake Score:** 0.991



**Frame:** 1535

**Timestamp:** 51.17 sec

**Fake Score:** 0.99



**Frame:** 1545

**Timestamp:** 51.5 sec

**Fake Score:** 0.99



**Frame:** 1605  
**Timestamp:** 53.5 sec  
**Fake Score:** 0.988



**Frame:** 1610  
**Timestamp:** 53.67 sec  
**Fake Score:** 0.988



**Frame:** 1615  
**Timestamp:** 53.83 sec  
**Fake Score:** 0.989



**Frame:** 1680  
**Timestamp:** 56.0 sec  
**Fake Score:** 0.988



**Frame:** 1685  
**Timestamp:** 56.17 sec  
**Fake Score:** 0.988



**Frame:** 1690  
**Timestamp:** 56.33 sec  
**Fake Score:** 0.987



**Frame:** 1695  
**Timestamp:** 56.5 sec  
**Fake Score:** 0.988



**Frame:** 1715  
**Timestamp:** 57.17 sec  
**Fake Score:** 0.988



**Frame:** 1720  
**Timestamp:** 57.33 sec  
**Fake Score:** 0.988



**Frame:** 1725  
**Timestamp:** 57.5 sec  
**Fake Score:** 0.988



**Frame:** 1730  
**Timestamp:** 57.67 sec  
**Fake Score:** 0.989



**Frame:** 1745  
**Timestamp:** 58.17 sec  
**Fake Score:** 0.988



**Frame:** 1755

**Timestamp:** 58.5 sec

**Fake Score:** 0.989

