

# Deepfake Analysis Report

## (Backbone: b5)

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### 1. Performance Summary

Model	Size (MB)	Reduction	AUC	Diff
baseline	108.79	-0.0%	0.9549 (Baseline)	+0.0000
q16	54.60	-49.8%	0.9548 (Stable)	-0.0001
q16-p50	54.60	-49.8%	0.9334 (Degraded)	-0.0215
q32-p50	108.99	--0.2%	0.9332 (Degraded)	-0.0216
q8	27.80	-74.4%	0.7588 (Degraded)	-0.1960
q8-p50	27.80	-74.4%	0.7119 (Degraded)	-0.2429

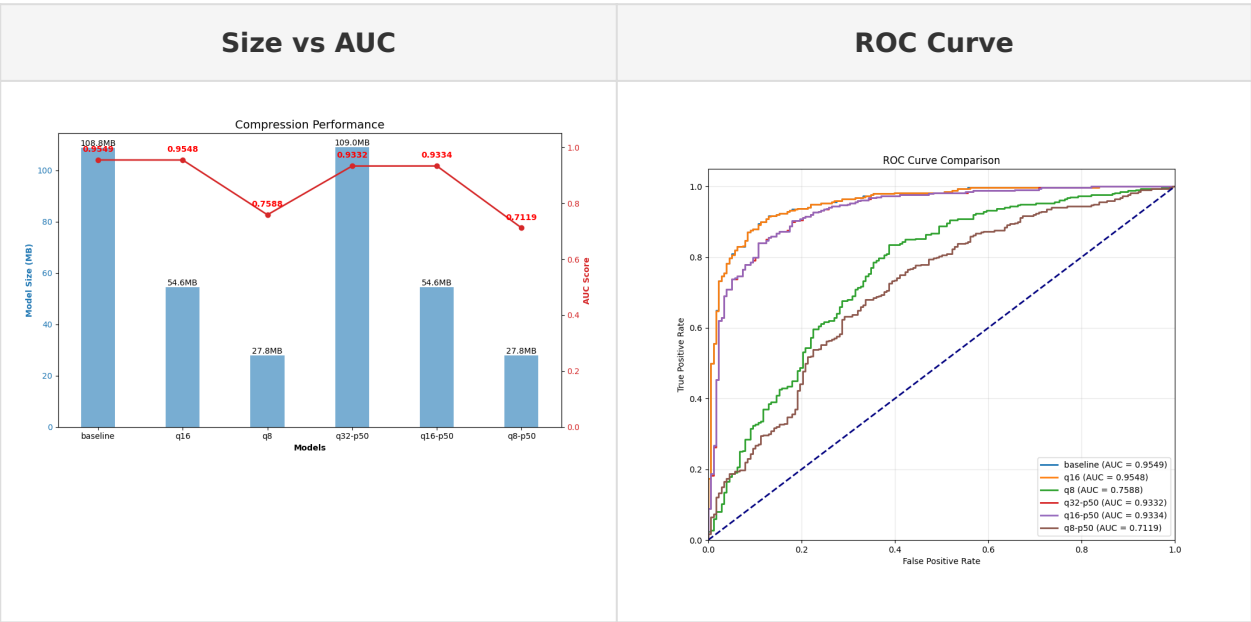
### 2. Key Insights

- Highest AUC: **baseline** at 0.9549.
- Best compression within 1% AUC of baseline: **q16** (54.6 MB, 49.8% smaller).
- Largest AUC drop: **q8-p50** (-0.2429).

### 3. Classification Quality

Model	Samples	TP	TN	FP	FN	Precision	Recall	F1	Accuracy
baseline	518	292	163	15	48	0.951	0.859	0.903	0.878
q16	518	291	163	15	49	0.951	0.856	0.901	0.876
q16-p50	518	339	50	128	1	0.726	0.997	0.840	0.751
q32-p50	518	339	49	129	1	0.724	0.997	0.839	0.749
q8	518	339	2	176	1	0.658	0.997	0.793	0.658
q8-p50	518	340	0	178	0	0.656	1.000	0.793	0.656

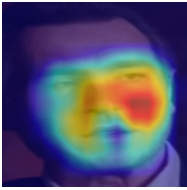


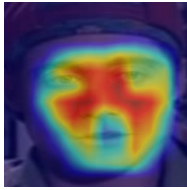

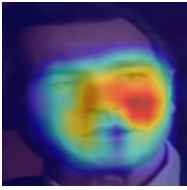


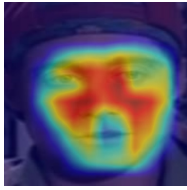
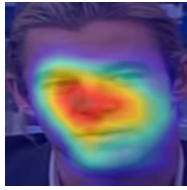

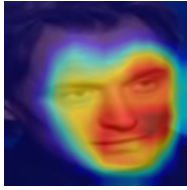

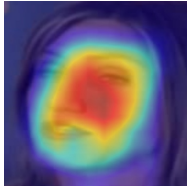
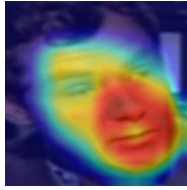

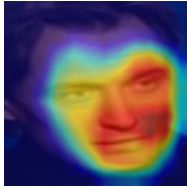

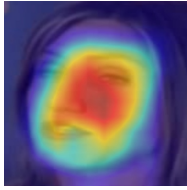
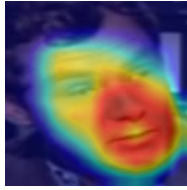





### 4. Visualizations




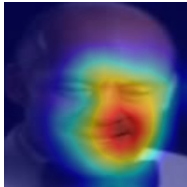



# 5. Visual Analysis


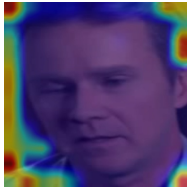

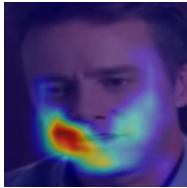
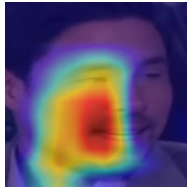

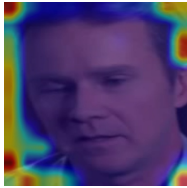


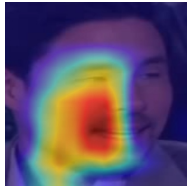
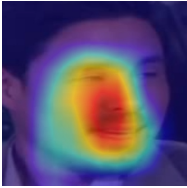
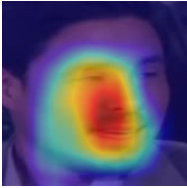

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## Resolved Fakes (True Positives)

Model	Rank 1	Rank 2	Rank 3	Rank 4	Rank 5
<b>Baseline</b>	 <p>0.9999 id37_id3_0..</p>	 <p>0.9999 id46_id41.._</p>	 <p>0.9999 id43_id40.._</p>	 <p>0.9999 id1_id2_00..</p>	 <p>0.9998 id17_id16.._</p>
<b>q16</b>	 <p>0.9999 id37_id3_0..</p>	 <p>0.9999 id46_id41.._</p>	 <p>0.9999 id43_id40.._</p>	 <p>0.9999 id1_id2_00..</p>	 <p>0.9998 id17_id16.._</p>
<b>q16-p50</b>	 <p>0.9986 id35_id31.._</p>	 <p>0.9982 id37_id28.._</p>	 <p>0.9981 id21_id20.._</p>	 <p>0.9980 id39_id44.._</p>	 <p>0.9980 id28_id6_0..</p>
<b>q32-p50</b>	 <p>0.9986 id35_id31.._</p>	 <p>0.9982 id37_id28.._</p>	 <p>0.9981 id21_id20.._</p>	 <p>0.9981 id39_id44.._</p>	 <p>0.9980 id28_id6_0..</p>
<b>q8</b>	 <p>1.0000 id46_id41.._</p>	 <p>1.0000 id2_id0_00..</p>	 <p>1.0000 id1_id2_00..</p>	 <p>0.9999 id1_id3_00..</p>	 <p>0.9999 id57_id53.._</p>

Model	Rank 1	Rank 2	Rank 3	Rank 4	Rank 5
q8-p50	 0.9998 id1_id2_00..	 0.9995 id17_id2_0..	 0.9994 id2_id26_0..	 0.9993 id24_id20.._	 0.9993 id2_id0_00..




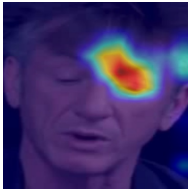
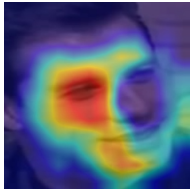



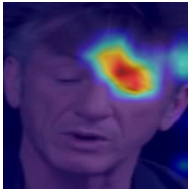
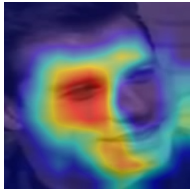










## Missed Fakes (False Negatives)

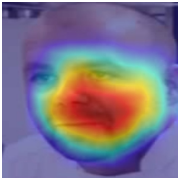
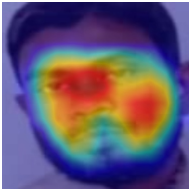
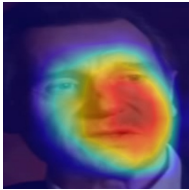
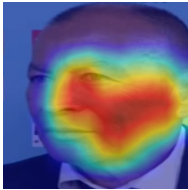


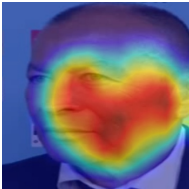
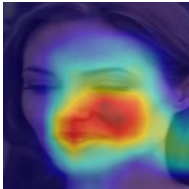
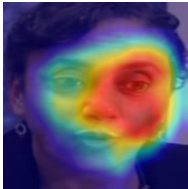

Model	Rank 1	Rank 2	Rank 3	Rank 4	Rank 5
<b>Baseline</b>	 <p>0.0304 id29_id32.._</p>	 <p>0.1034 id30_id6_0..</p>	 <p>0.1215 id33_id32.._</p>	 <p>0.1218 id30_id23.._</p>	 <p>0.1294 id9_id3_00..</p>
<b>q16</b>	 <p>0.0301 id29_id32.._</p>	 <p>0.1025 id30_id6_0..</p>	 <p>0.1206 id33_id32.._</p>	 <p>0.1208 id30_id23.._</p>	 <p>0.1291 id9_id3_00..</p>
<b>q16-p50</b>	 <p>0.3961 id9_id3_00..</p>	N/A	N/A	N/A	N/A
<b>q32-p50</b>	 <p>0.3973 id9_id3_00..</p>	N/A	N/A	N/A	N/A
<b>q8</b>	 <p>0.3872 id10_id11.._</p>	N/A	N/A	N/A	N/A

Model	Rank 1	Rank 2	Rank 3	Rank 4	Rank 5
q8-p50	N/A	N/A	N/A	N/A	N/A

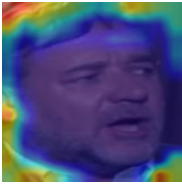


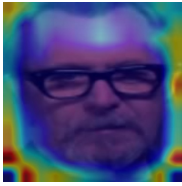

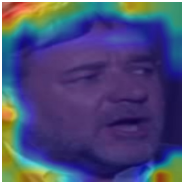


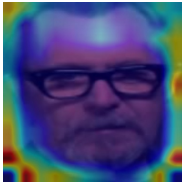

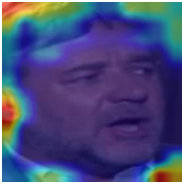




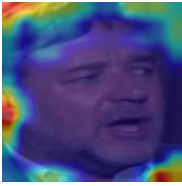




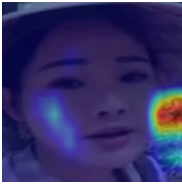



## **False Positives (Real labeled Fake)**

Model	Rank 1	Rank 2	Rank 3	Rank 4	Rank 5
<b>Baseline</b>	 0.9808 00047.mp4	 0.8435 id51_0001...	 0.8011 00170.mp4	 0.7185 id31_0003...	 0.6559 id21_0009...
<b>q16</b>	 0.9809 00047.mp4	 0.8418 id51_0001...	 0.8003 00170.mp4	 0.7177 id31_0003...	 0.6526 id21_0009...
<b>q16-p50</b>	 0.9966 00047.mp4	 0.9955 id51_0001...	 0.9936 00082.mp4	 0.9876 00256.mp4	 0.9728 00264.mp4
<b>q32-p50</b>	 0.9966 00047.mp4	 0.9955 id51_0001...	 0.9937 00082.mp4	 0.9878 00256.mp4	 0.9734 00264.mp4

Model	Rank 1	Rank 2	Rank 3	Rank 4	Rank 5
q8	 <p>0.9999 00119.mp4</p>	 <p>0.9999 00236.mp4</p>	 <p>0.9999 id37_0004...</p>	 <p>0.9998 00252.mp4</p>	 <p>0.9998 00264.mp4</p>
q8-p50	 <p>0.9993 00264.mp4</p>	 <p>0.9989 00252.mp4</p>	 <p>0.9987 id13_0011...</p>	 <p>0.9984 00256.mp4</p>	 <p>0.9984 00119.mp4</p>

**Confirmed Reals (True Negatives)**

Model	Rank 1	Rank 2	Rank 3	Rank 4	Rank 5
Baseline	 <p>0.0020 id32_0008...</p>	 <p>0.0026 id27_0009...</p>	 <p>0.0027 id4_0004.mp4</p>	 <p>0.0033 id36_0008...</p>	 <p>0.0035 id44_0003...</p>
q16	 <p>0.0020 id32_0008...</p>	 <p>0.0026 id27_0009...</p>	 <p>0.0027 id4_0004.mp4</p>	 <p>0.0033 id36_0008...</p>	 <p>0.0035 id44_0003...</p>
q16-p50	 <p>0.0321 id32_0008...</p>	 <p>0.0702 id36_0008...</p>	 <p>0.0847 id27_0009...</p>	 <p>0.0956 id35_0003...</p>	 <p>0.1100 id36_0000...</p>
q32-p50	 <p>0.0323 id32_0008...</p>	 <p>0.0704 id36_0008...</p>	 <p>0.0851 id27_0009...</p>	 <p>0.0965 id35_0003...</p>	 <p>0.1107 id36_0000...</p>
q8			N/A	N/A	N/A

Model	Rank 1	Rank 2	Rank 3	Rank 4	Rank 5
	0.3014 00207.mp4	0.3667 id35_0003...			
q8-p50	N/A	N/A	N/A	N/A	N/A