Error Analysis: efficientnet_b0 on FER2013

Per-Class Error Rates

- Angry: 36.5%
- Disgust: 29.7%
- Fear: 46.4%
- Happy: 10.5%
- Sad: 41.8%
- Surprise: 16.0%
- Neutral: 26.8%

Mean: 29.7%
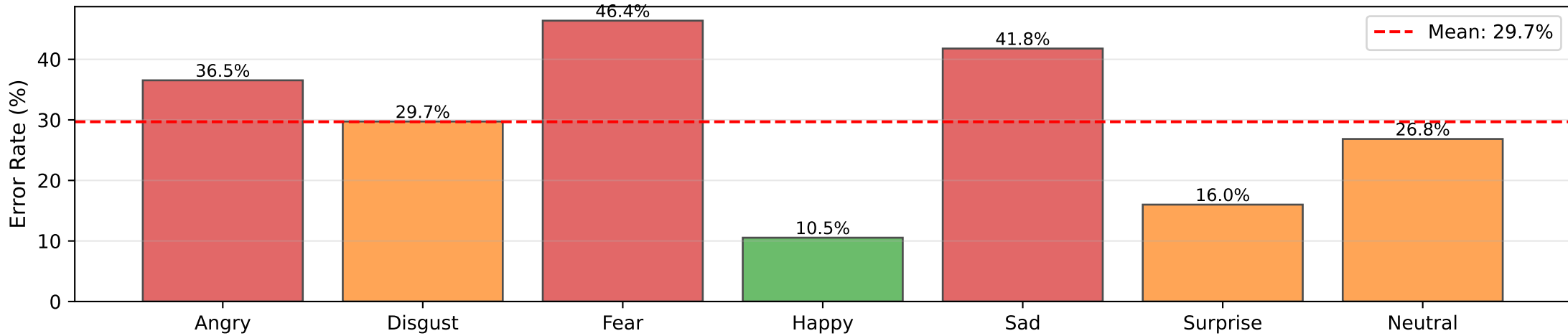
Top 10 Most Confused Class Pairs

- Disgust→Angry: 18.0%
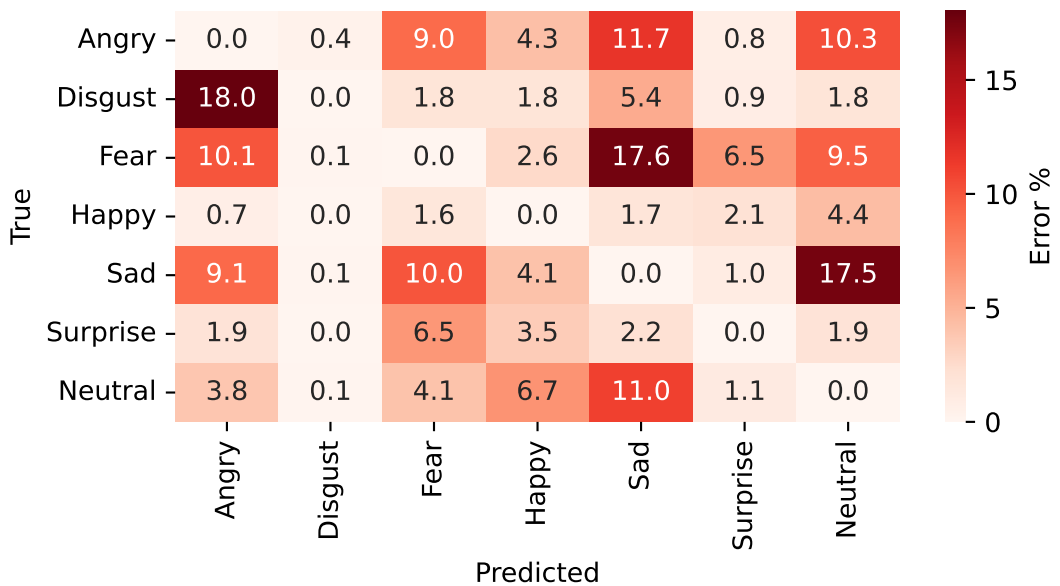- Fear→Sad: 17.6%
- Sad→Neutral: 17.5%
- Angry→Sad: 11.7%
- Neutral→Sad: 11.0%
- Angry→Neutral: 10.3%
- Fear→Angry: 10.1%
- Sad→Fear: 10.0%
- Fear→Neutral: 9.5%
- Sad→Angry: 9.1%

Confusion Rate (% of True Class)
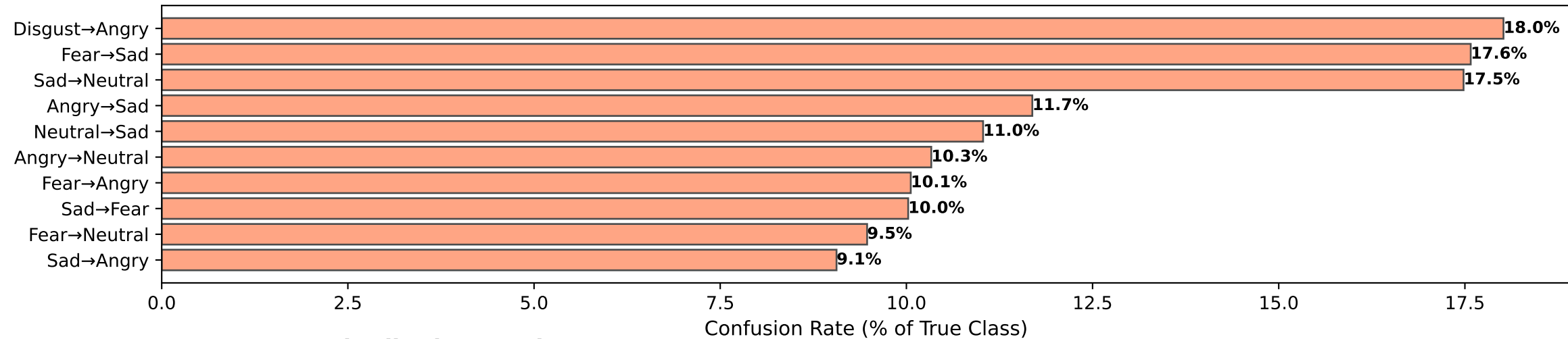
Error Distribution Matrix

True \ Predicted	Angry	Disgust	Fear	Happy	Sad	Surprise	Neutral
Angry	0.0	0.4	9.0	4.3	11.7	0.8	10.3
Disgust	18.0	0.0	1.8	1.8	5.4	0.9	1.8
Fear	10.1	0.1	0.0	2.6	17.6	6.5	9.5
Happy	0.7	0.0	1.6	0.0	1.7	2.1	4.4
Sad	9.1	0.1	10.0	4.1	0.0	1.0	17.5
Surprise	1.9	0.0	6.5	3.5	2.2	0.0	1.9
Neutral	3.8	0.1	4.1	6.7	11.0	1.1	0.0

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ERROR ANALYSIS SUMMARY
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Overall Accuracy: 71.72%
Average Error Rate: 29.69%

Best Performing Class:
   • Happy: 89.46% accuracy

Worst Performing Class:
   • Fear: 53.61% accuracy

Most Critical Confusions:
   1. Disgust → Angry: 18.0%
2. Fear → Sad: 17.6%
3. Sad → Neutral: 17.5%
```