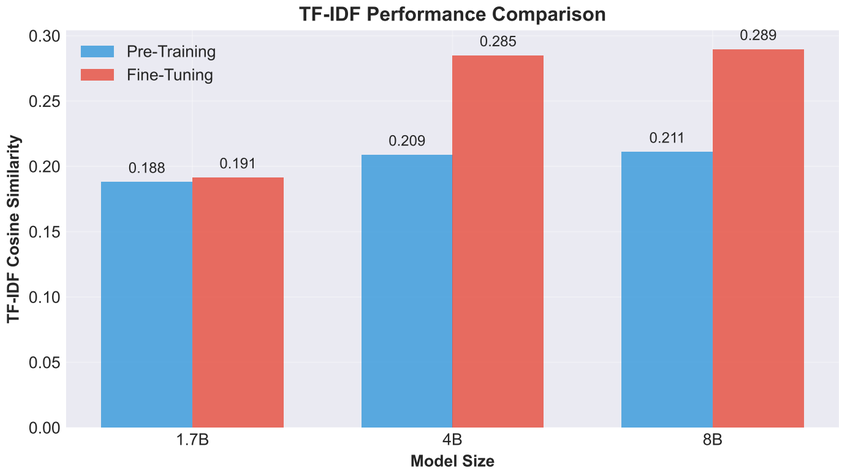
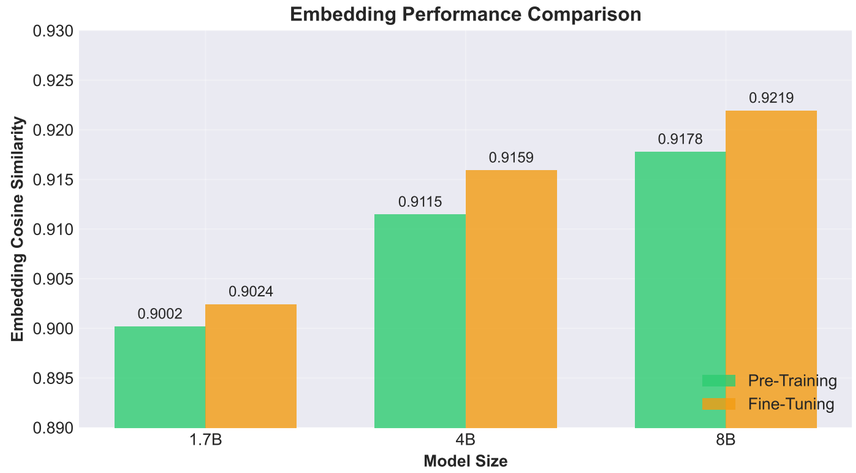
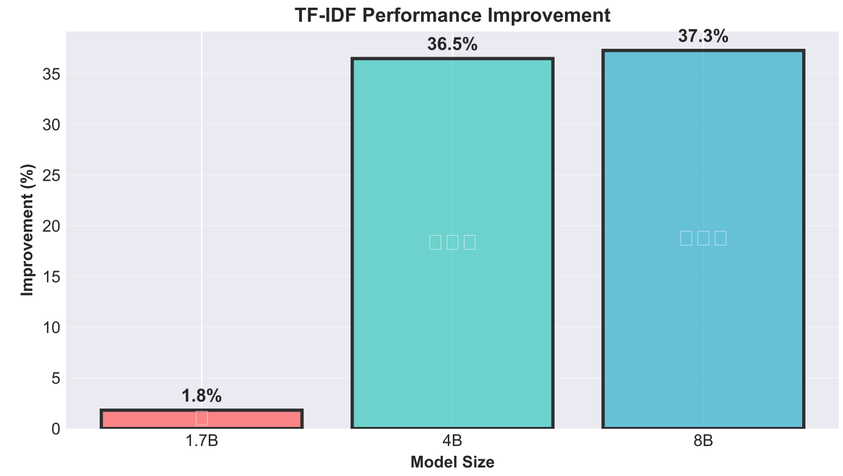
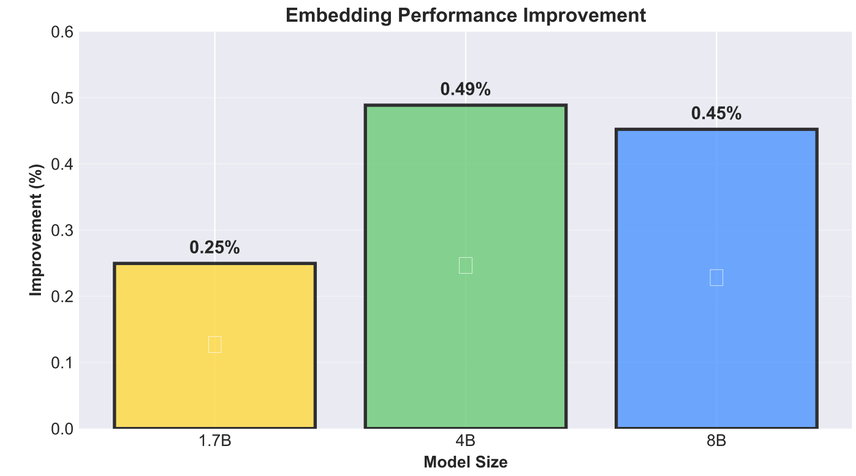
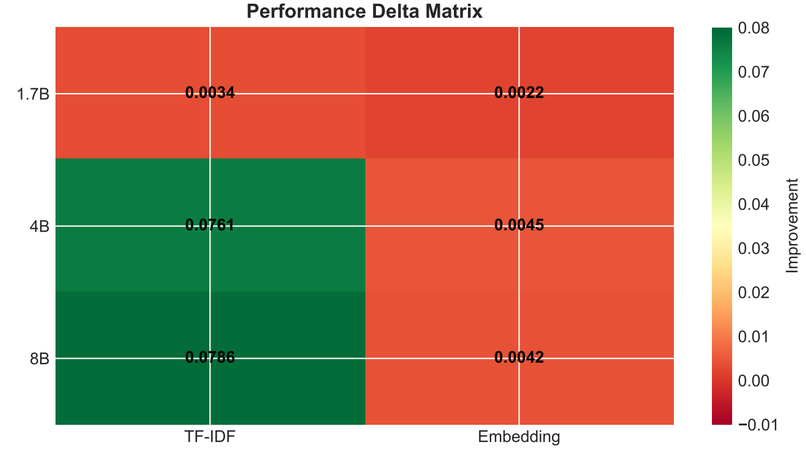
Comprehensive Model Performance Analysis: Pre-Training vs Fine-Tuning

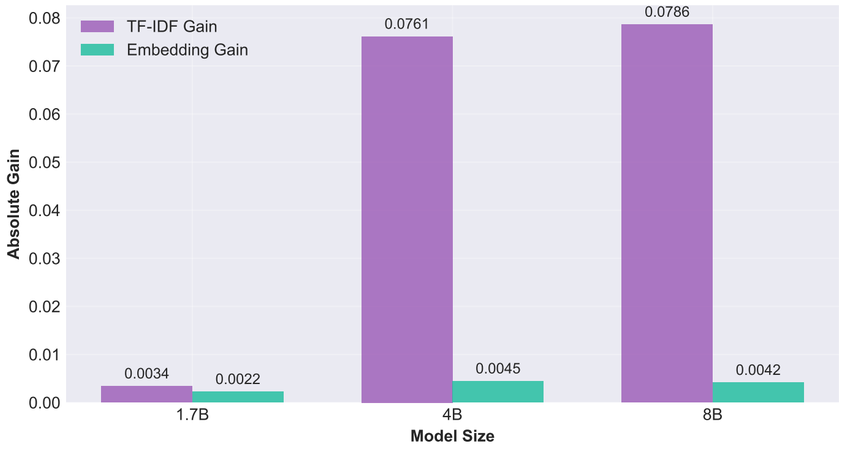


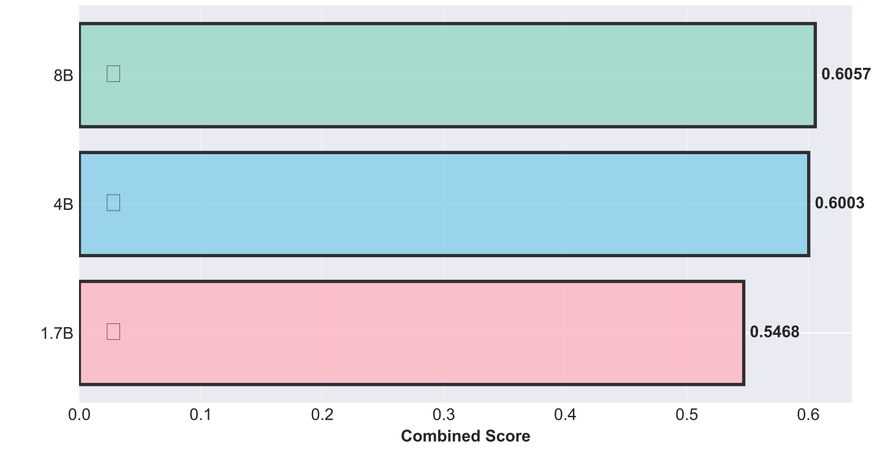










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🎯 PERFORMANCE SUMMARY
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Average Improvements:
• TF-IDF: 25.20%
• Embedding: 0.40%

Best Performers:
• TF-IDF Improvement: 8B (37.3%)
• Embedding Improvement: 4B (0.49%)
• Overall Performance: 8B

Key Insights:
✓ Fine-tuning shows significant TF-IDF gains
  for 4B and 8B models (36-37%)
✓ Embedding improvements are minimal (<0.5%)
  due to high baseline performance
✓ Larger models (4B, 8B) benefit more from
  fine-tuning than smaller models (1.7B)

Recommendation:
Deploy 8B model for optimal performance
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