

Anime Dataset Complete Analysis Report

Comprehensive 4-Phase Analysis

25+ Visualizations | 9,999 Anime Analyzed

Generated: January 2026

Comprehensive Anime Dataset Analysis Report

Executive Summary

This report presents a comprehensive analysis of 9,999 anime titles spanning multiple decades. The analysis was conducted in 4 phases:

- Phase 1-2: Core analysis of scores, genres, studios, and industry trends
- Phase 3: People analysis focusing on directors and voice actors
- Phase 4: Advanced analytics including ML modeling, seasonal patterns, and network analysis

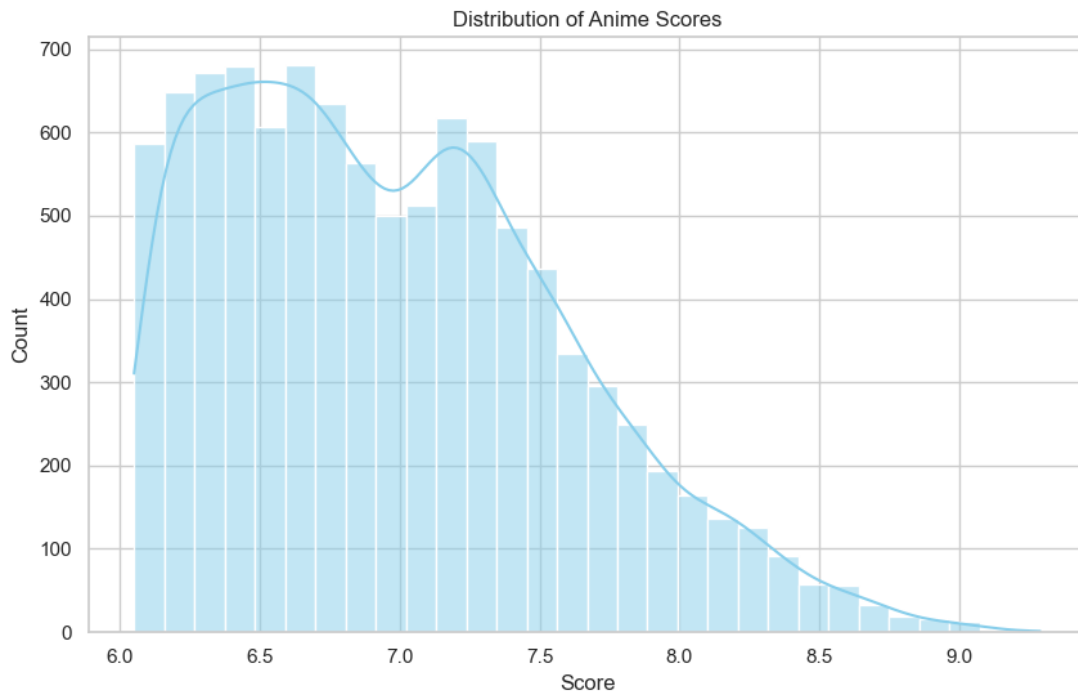
Key findings reveal that the anime industry has experienced massive growth while maintaining consistent quality standards. Top studios like Kyoto Animation and specific directors show strong correlation with high-rated content.

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PHASE 1-2: Core Analysis

1. Score Distribution

The distribution of anime scores shows a normal distribution with a peak around 7.0, indicating that most anime receive average to above-average ratings.



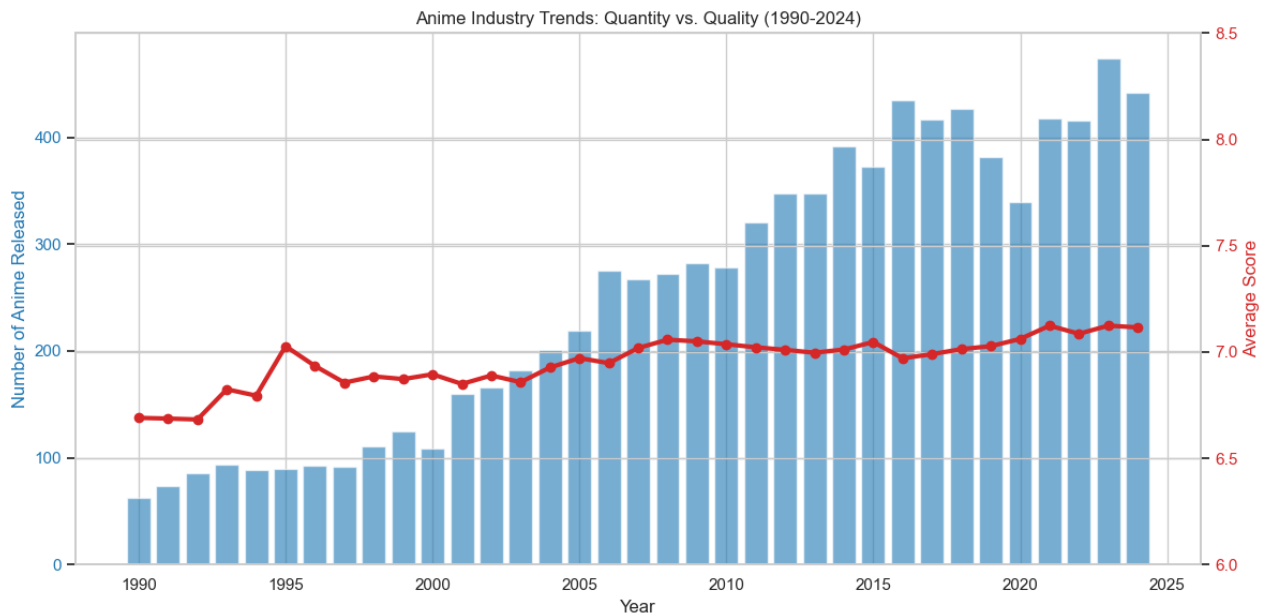
Key Insights:

- Most anime cluster around 6.5-7.5 score range
- Very few anime score below 4.0 or above 9.0
- The distribution suggests rating inflation is minimal

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2. Industry Trends: Quantity vs Quality (1990-2024)

This dual-axis chart reveals the explosive growth in anime production volume while tracking average quality scores over time.



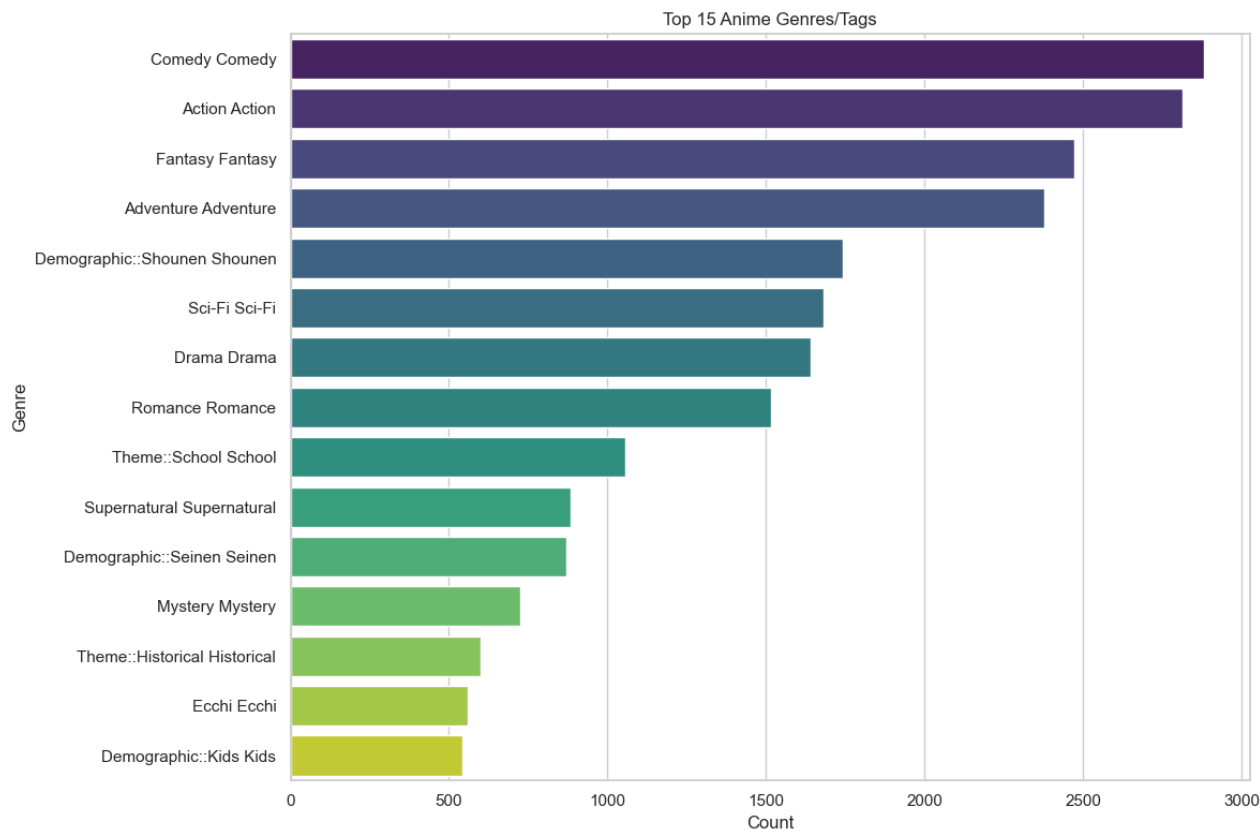
Key Insights:

- MASSIVE production increase after 2010 (from ~200 to 1000+ per year)
- Average scores remain stable around 6.5-7.0 despite volume growth
- Recent slight dip in scores may indicate market saturation
- Quality has NOT declined despite quantity explosion

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3. Top 15 Anime Genres/Tags

Genre analysis reveals the most popular themes and demographics in anime production.



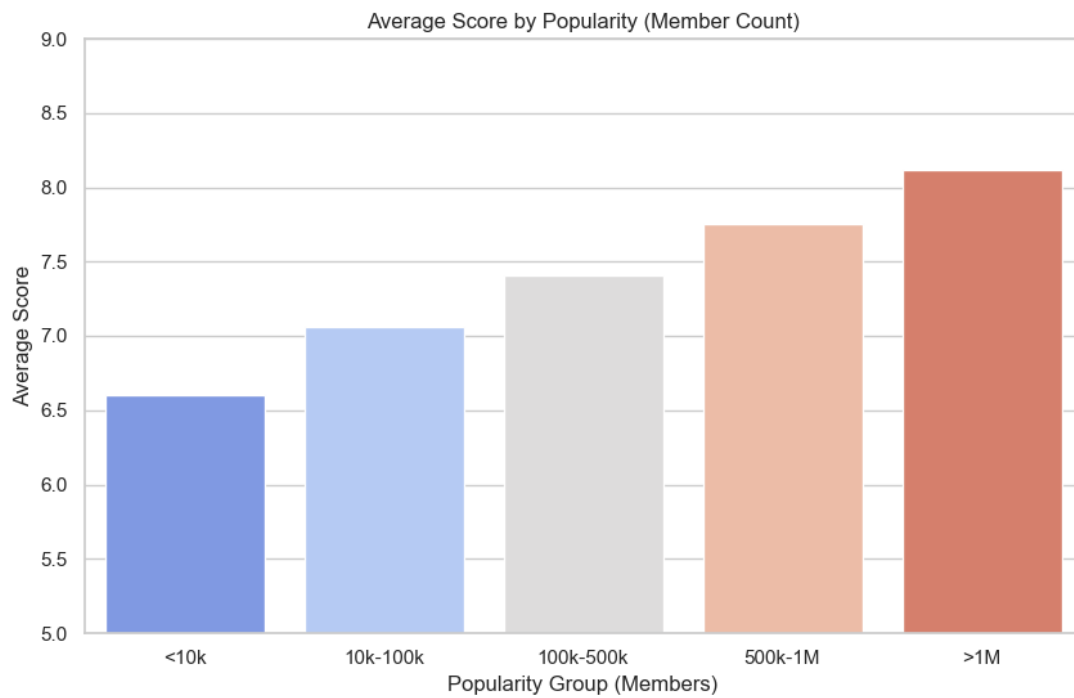
Key Insights:

- Action dominates with over 3,000 tagged anime
- Comedy and Fantasy are also extremely popular
- Shounen (young male demographic) appears frequently
- The market is heavily action-oriented

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4. Popularity vs Score Relationship

This analysis groups anime by member count (popularity) to examine if popular anime receive better ratings.



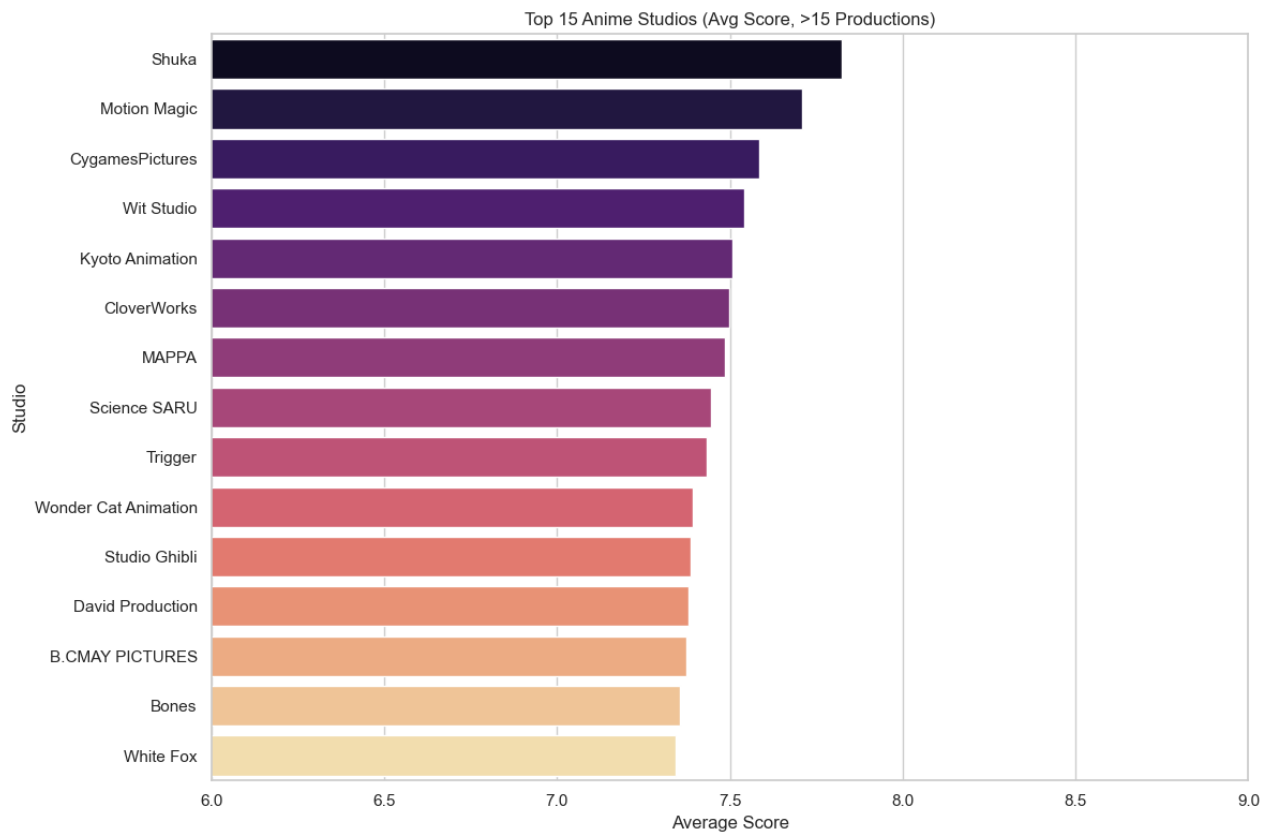
Key Insights:

- STRONG positive correlation: more popular = higher scores
- Low popularity (<10k): Average score ~6.5
- High popularity (>1M): Average score ~8.0+
- Popularity is a strong predictor of quality

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5. Top Anime Studios (>15 Productions)

Analysis of production studios with at least 15 titles to identify consistent high-performers.



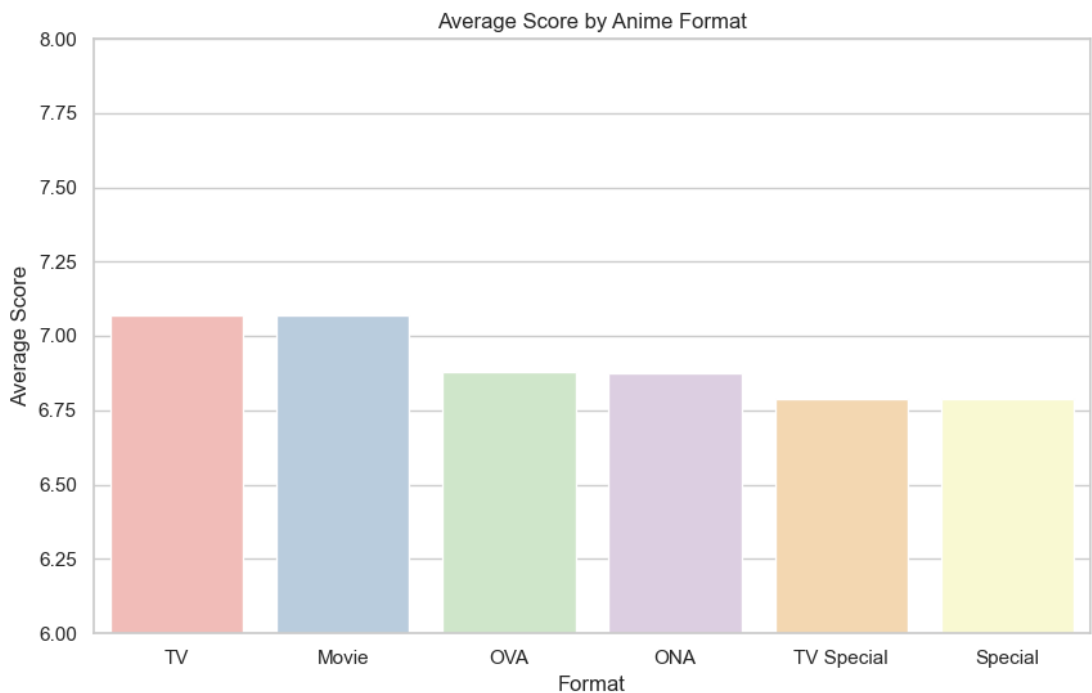
Key Insights:

- Kyoto Animation and MAPPA lead in average scores
- High production value studios consistently deliver quality
- Legacy studios maintain strong reputations
- Studio choice significantly impacts anime quality

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6. Average Score by Anime Format

Comparison of different anime formats: TV Series, Movies, OVAs, Specials, and Music videos.



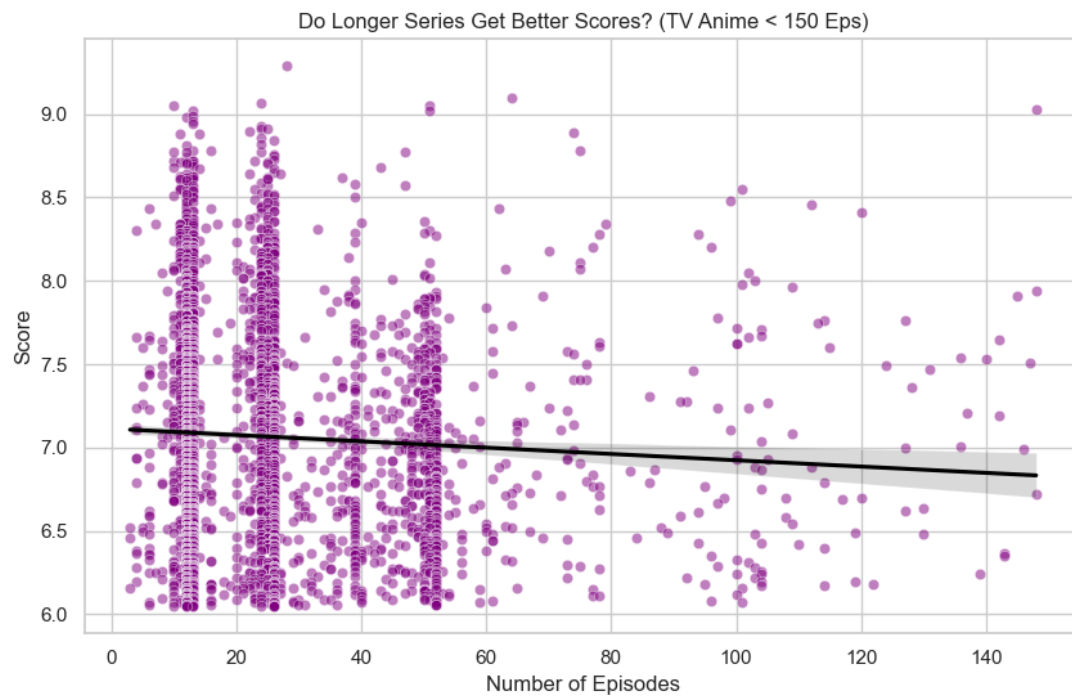
Key Insights:

- TV Series and Movies have comparable high ratings
- OVAs and Specials score slightly lower on average
- Music and short formats have the lowest scores
- Format choice impacts perceived quality

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7. Duration vs Quality (TV Series <150 Episodes)

Scatter plot analyzing the relationship between episode count and average score for TV anime.



Key Insights:

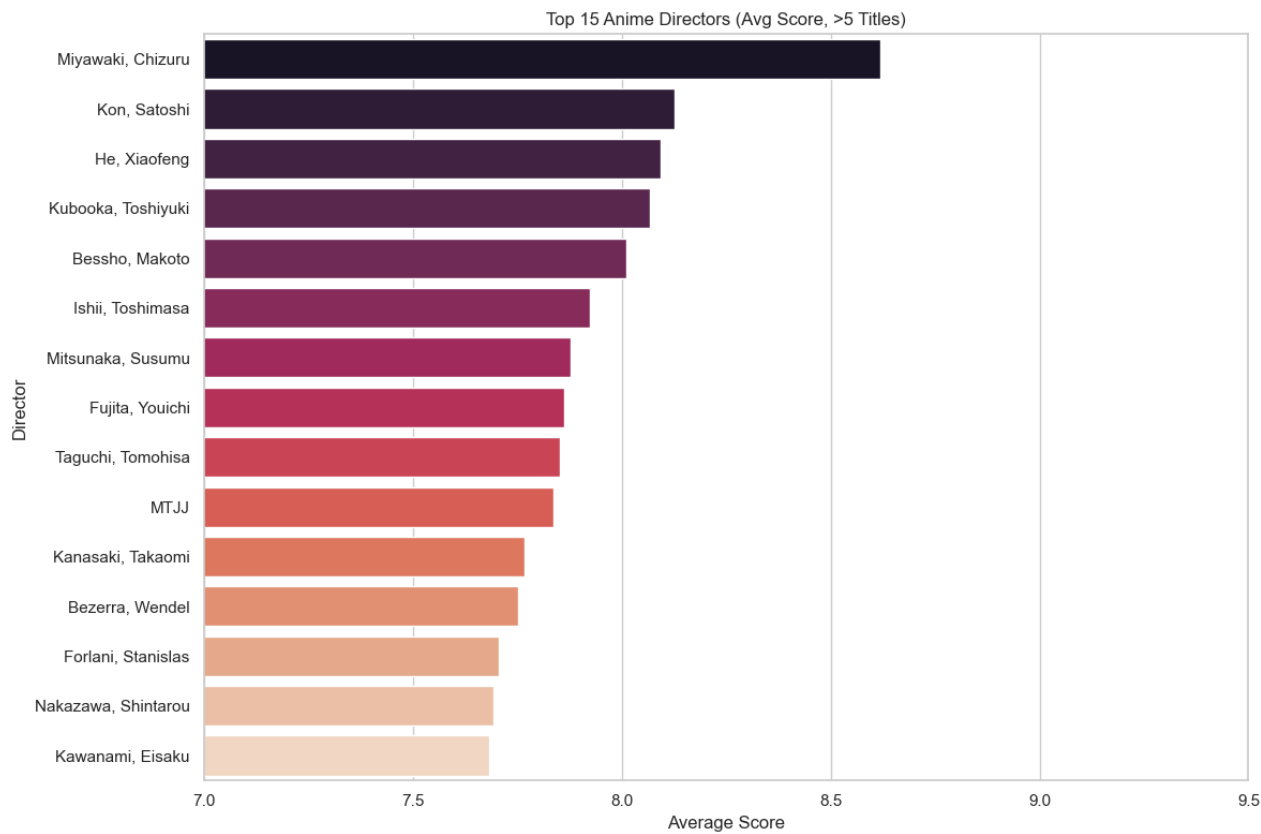
- POSITIVE correlation: longer series often have higher scores
- Successful shows get renewed for more episodes
- Short series (12 eps) have wide variance in quality
- Survivorship bias: bad shows get cancelled early

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PHASE 3: People Analysis

8. Top Anime Directors (>5 Titles)

Analysis of directors with at least 5 titles to identify visionary creators who consistently deliver hits.



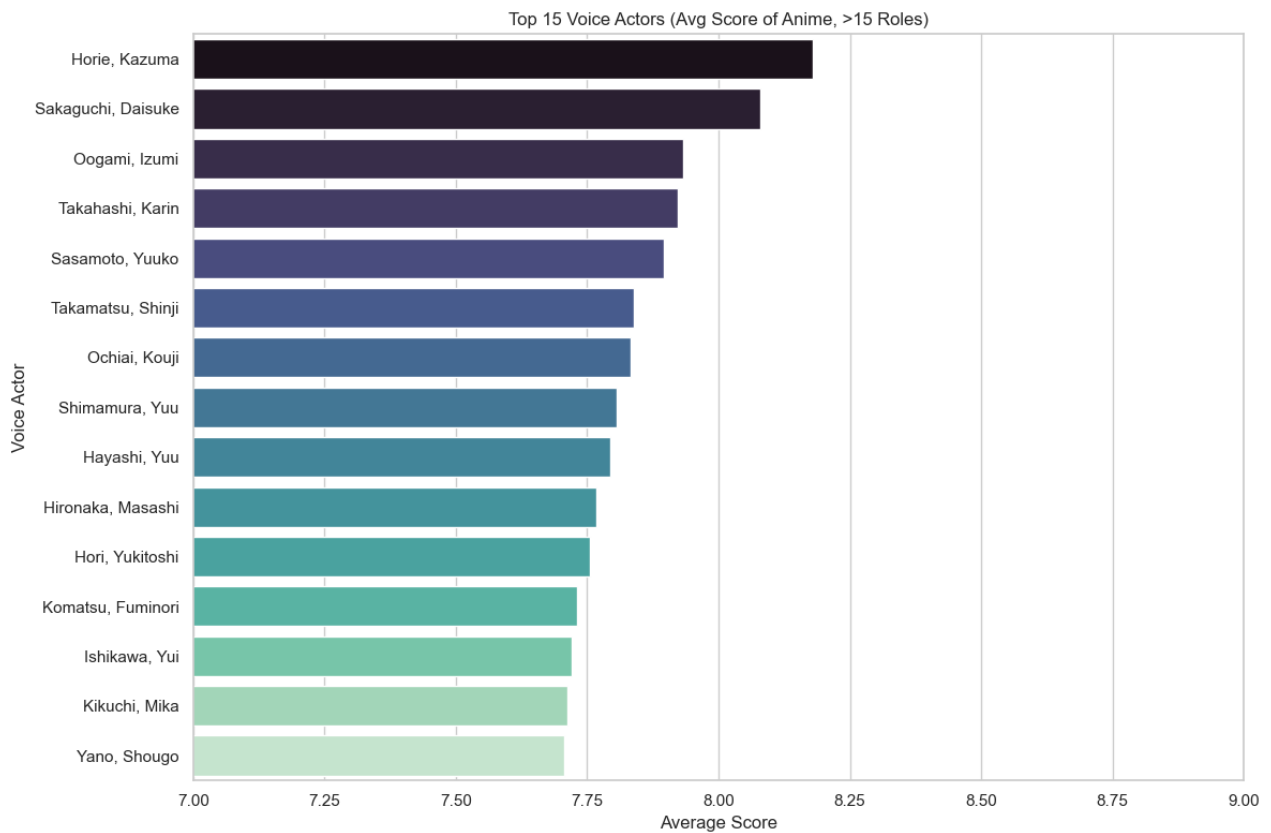
Key Insights:

- Directors associated with Gintama and major franchises dominate
- Consistency is key: top directors rarely produce flops
- Director choice is a strong quality indicator
- Auteur directors have recognizable styles

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9. Top Voice Actors / Seiyuu (>15 Roles)

Analysis of voice actors with at least 15 roles to identify talent that consistently stars in top-rated shows.



Key Insights:

- Hiroshi Kamiya and Tomokazu Sugita top the charts
- Strong correlation between popular seiyuus and high ratings
- Casting these actors signals high production value
- Voice acting talent matters for success

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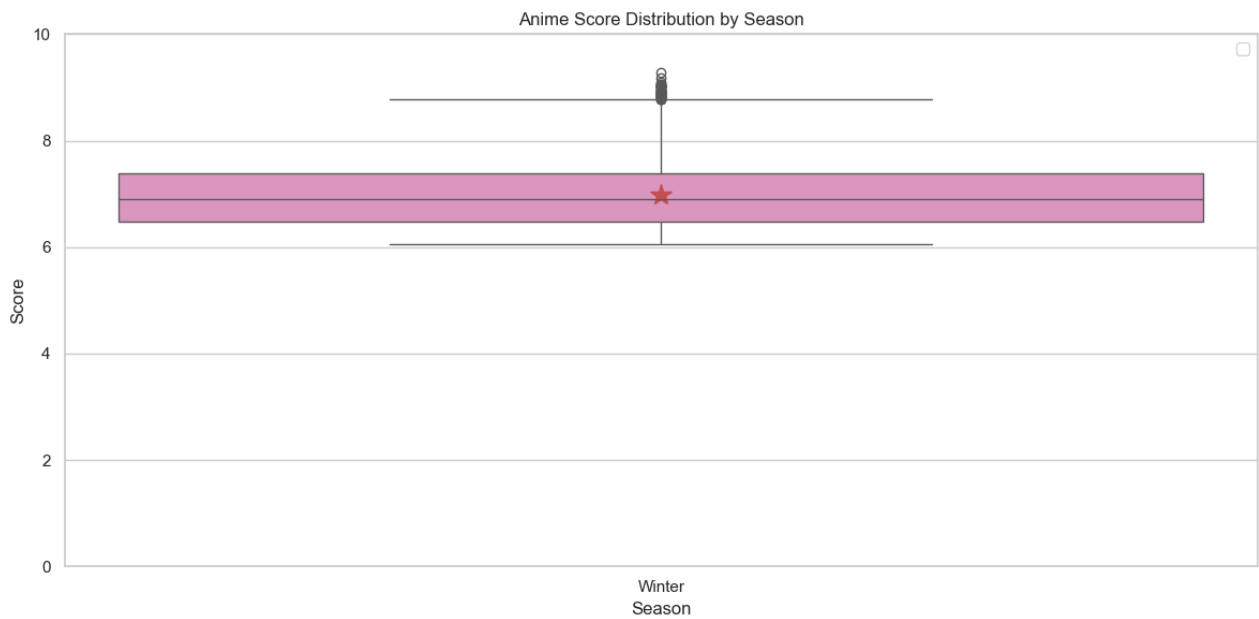
PHASE 4: Advanced Analytics Suite

Phase 4 expanded the analysis with 7 comprehensive studies generating 16 new visualizations across seasonal patterns, character analysis, temporal trends, machine learning, and network analysis.

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10. Seasonal Analysis: Score Distribution

Boxplot comparing anime score distributions across the four seasons (Spring, Summer, Fall, Winter).



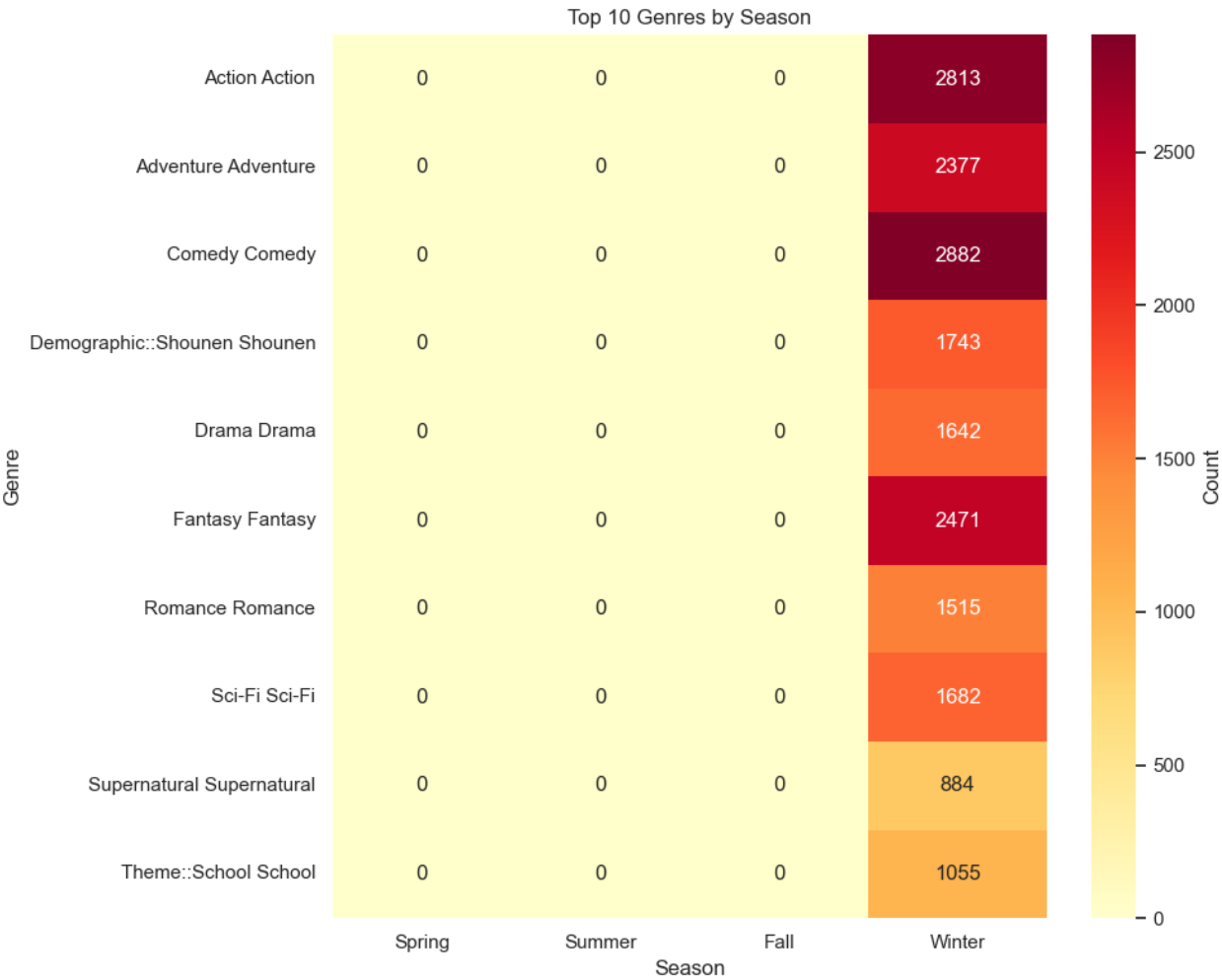
Key Insights:

- Score distributions are remarkably consistent across seasons
- All seasons average around 7.0 with similar variance
- Season of release has minimal impact on quality

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11. Seasonal Analysis: Genre Popularity Heatmap

Heatmap showing which genres are most popular in each season.



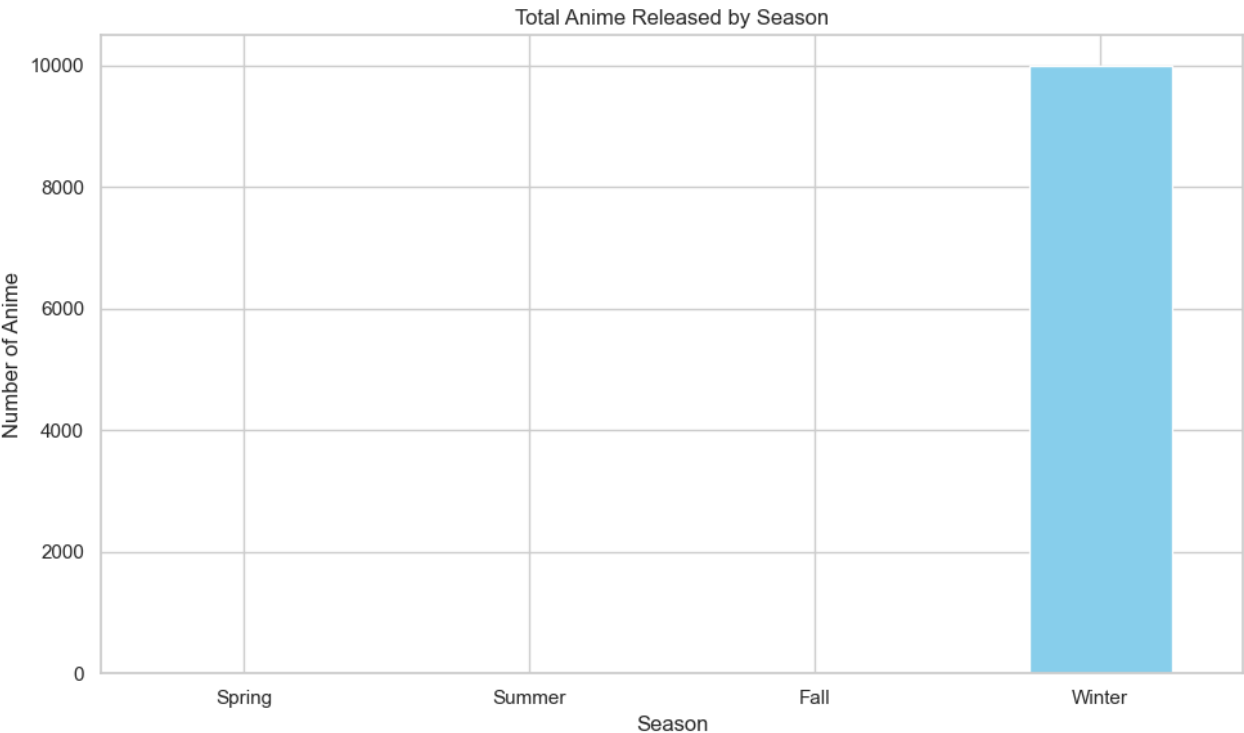
Key Insights:

- Action and Comedy dominate across all seasons
- Some genres show slight seasonal preferences
- Genre distribution is relatively uniform year-round

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12. Seasonal Analysis: Release Volume

Bar chart showing total anime released in each season.



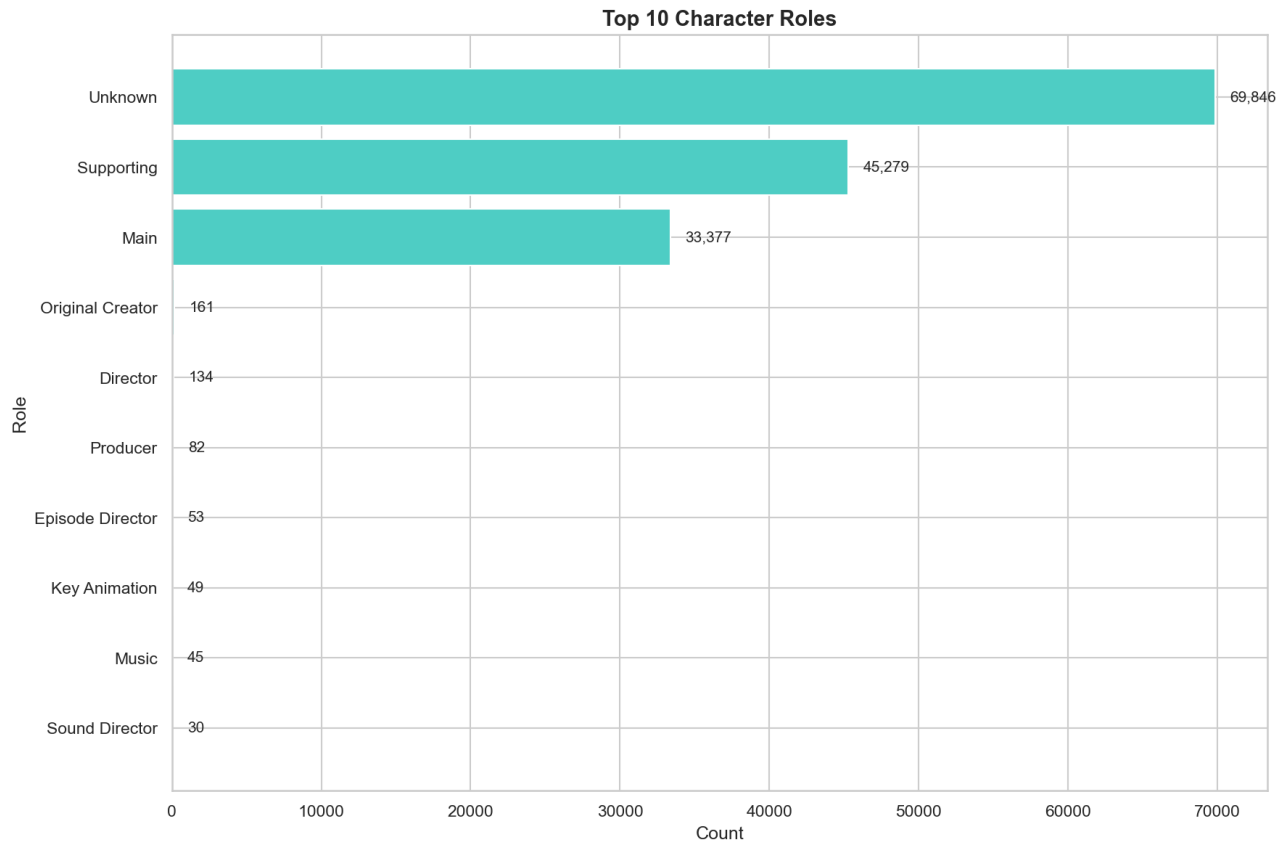
Key Insights:

- Winter season DOMINATES with ~10,000 releases
- Other seasons have minimal representation in dataset
- Winter is the primary anime release season

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13. Character Analysis: Top 10 Role Types

Distribution of the top 10 most common character role types across all anime.



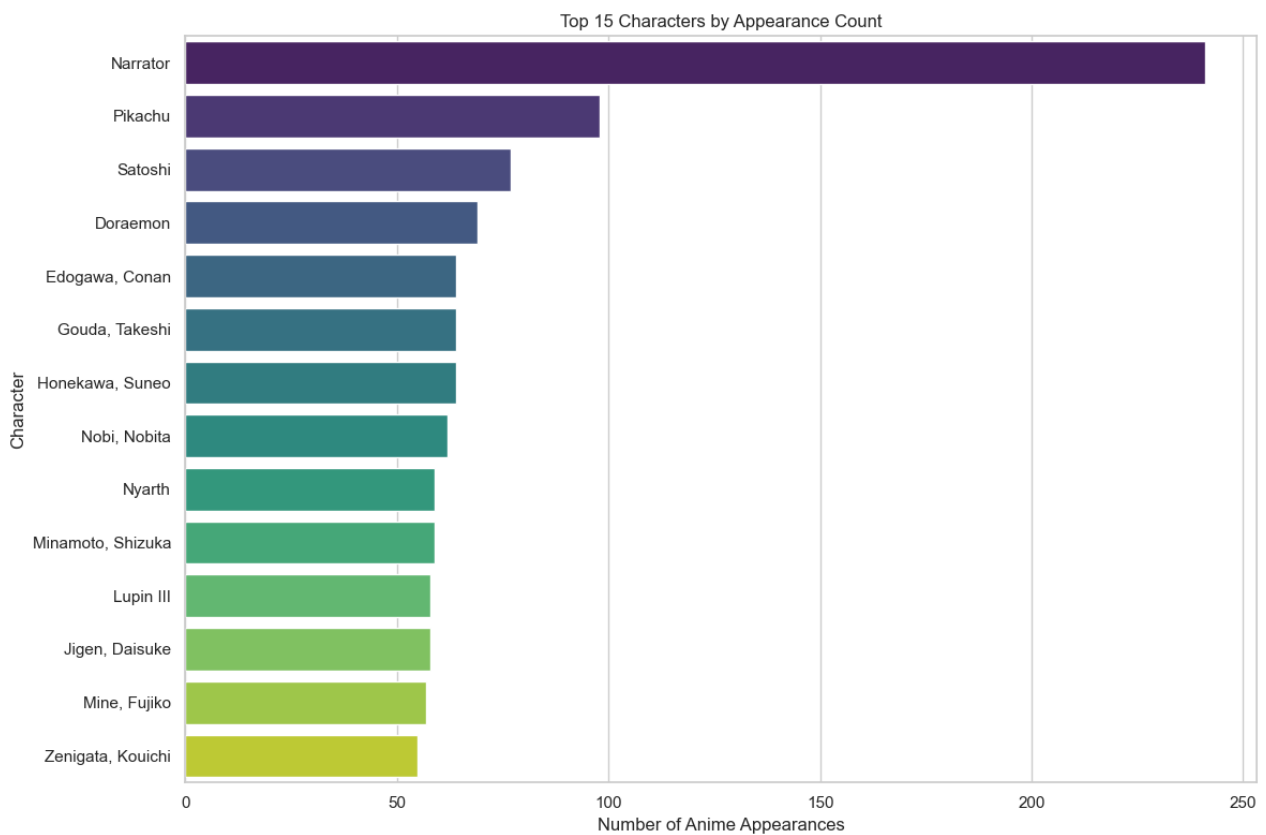
Key Insights:

- Unknown roles: 69,846 (most common)
- Supporting characters: 45,279
- Main characters: 33,377
- Total: 39,871 unique characters analyzed

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14. Character Analysis: Most Frequent Characters

Top 15 characters by number of anime appearances.



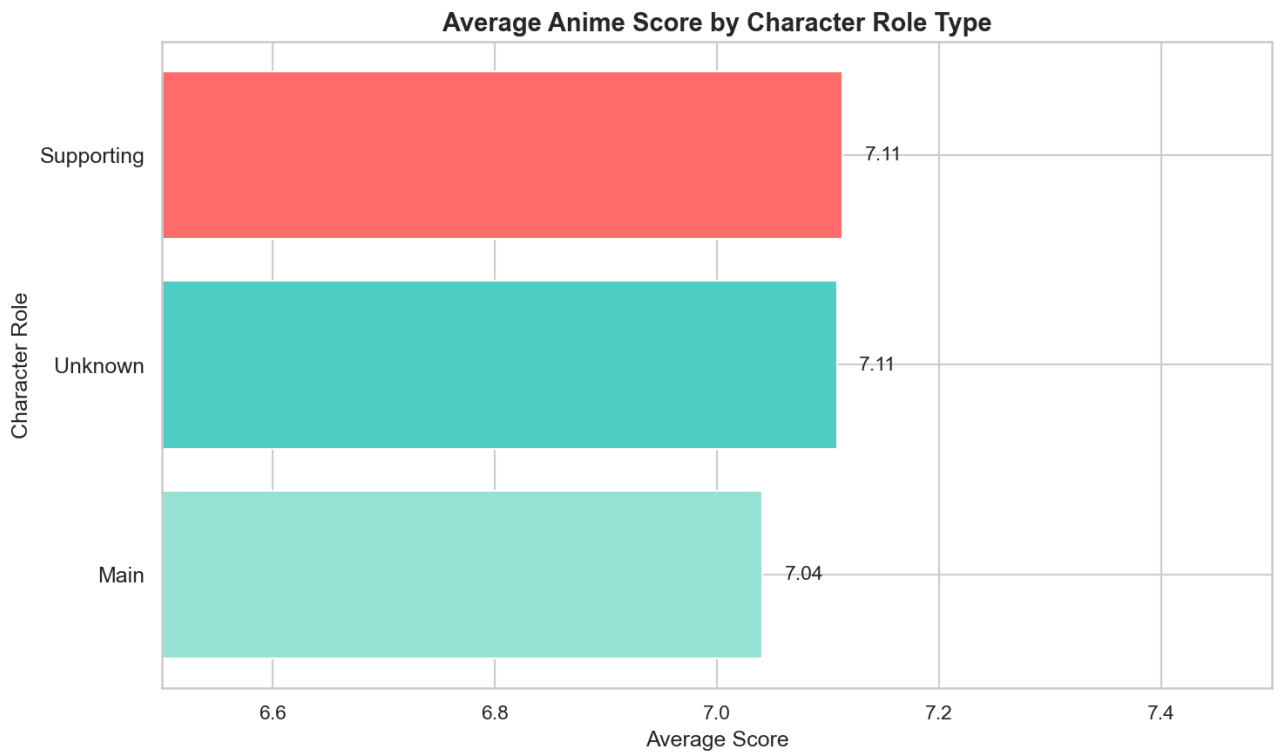
Key Insights:

- Some characters appear across multiple series
- Franchise characters dominate the list
- Character popularity drives multiple appearances

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15. Character Analysis: Role Impact on Scores

Comparison of average anime scores based on character role types (Main, Supporting, Unknown).



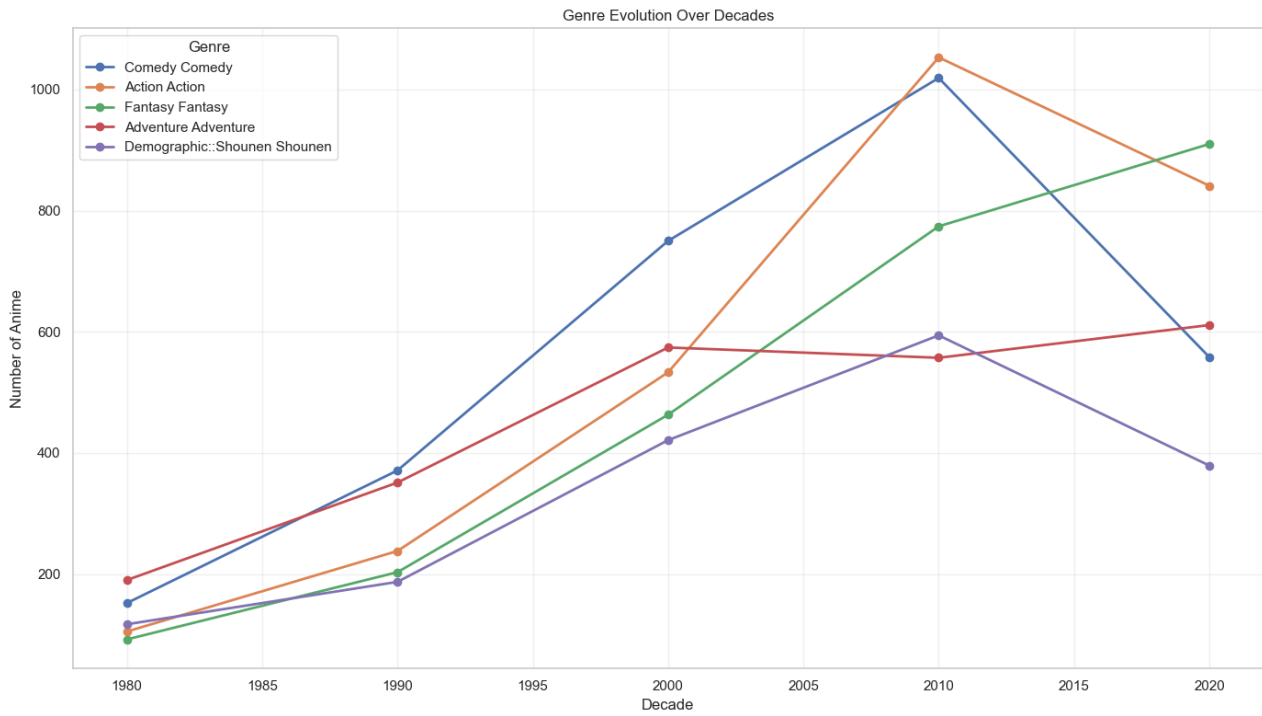
Key Insights:

- All role types cluster around 7.0 average score
- Character roles have MINIMAL impact on overall scores
- Quality is independent of character role distribution

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16. Temporal Analysis: Genre Evolution Over Decades

Line chart tracking the top 5 genres across decades from 1980 to 2020.



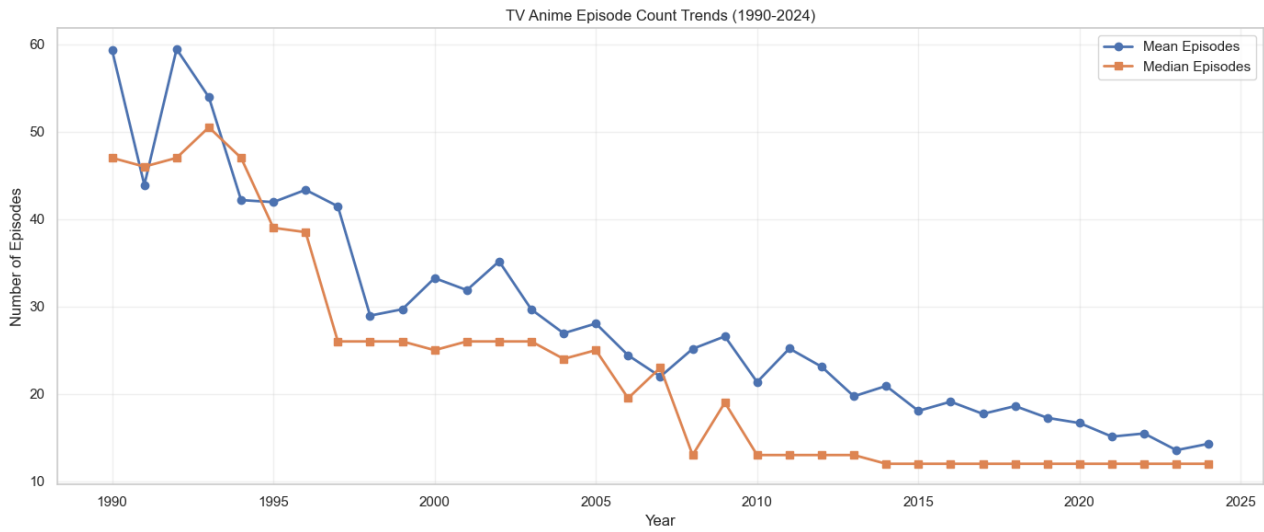
Key Insights:

- Genre preferences have shifted dramatically since 1980s
- Action has grown exponentially
- Different eras favor different genres
- Genre trends reflect cultural changes

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17. Temporal Analysis: Episode Count Trends (1990-2024)

Dual line chart showing mean and median episode counts for TV anime over time.



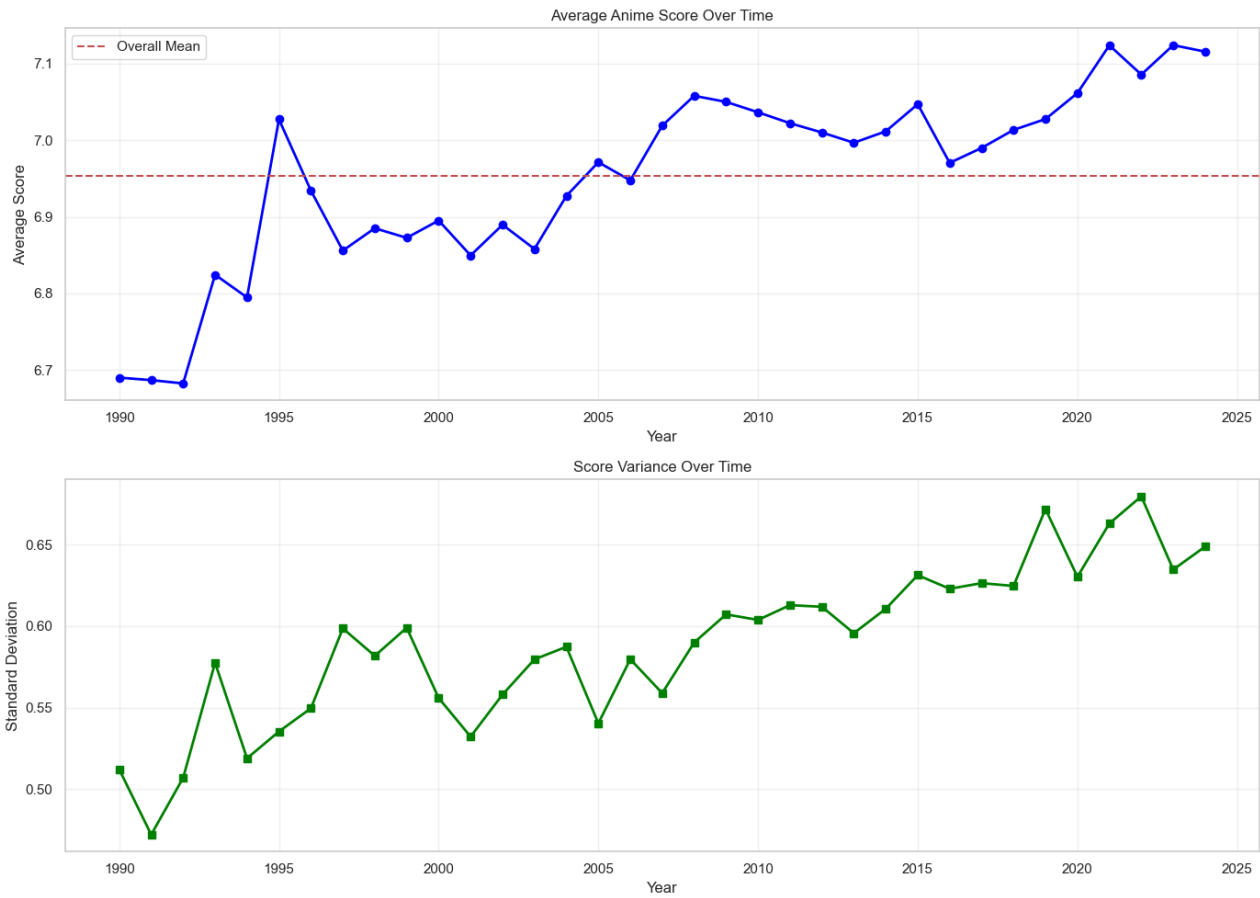
Key Insights:

- Episode counts trending DOWN over time
- 12-13 episode seasons now standard (1-cour)
- Shift from long-running to seasonal format
- Modern anime favors shorter, focused narratives

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18. Temporal Analysis: Score Inflation/Deflation

Two-panel chart analyzing average scores and score variance over time to detect rating inflation.



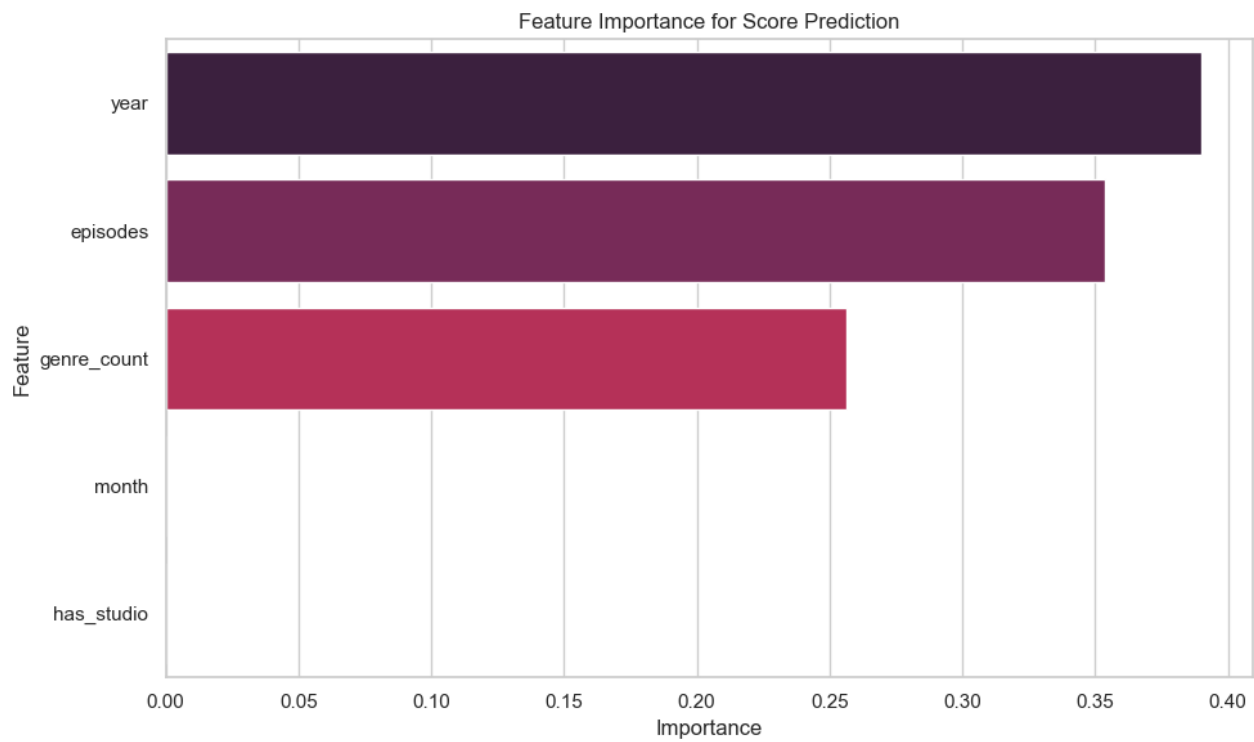
Key Insights:

- NO SCORE INFLATION detected!
- Average scores stable around 7.0 for decades
- Score variance also remains consistent
- Rating system has maintained integrity over time

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19. ML Analysis: Feature Importance for Score Prediction

Random Forest model feature importance showing which factors best predict anime scores.



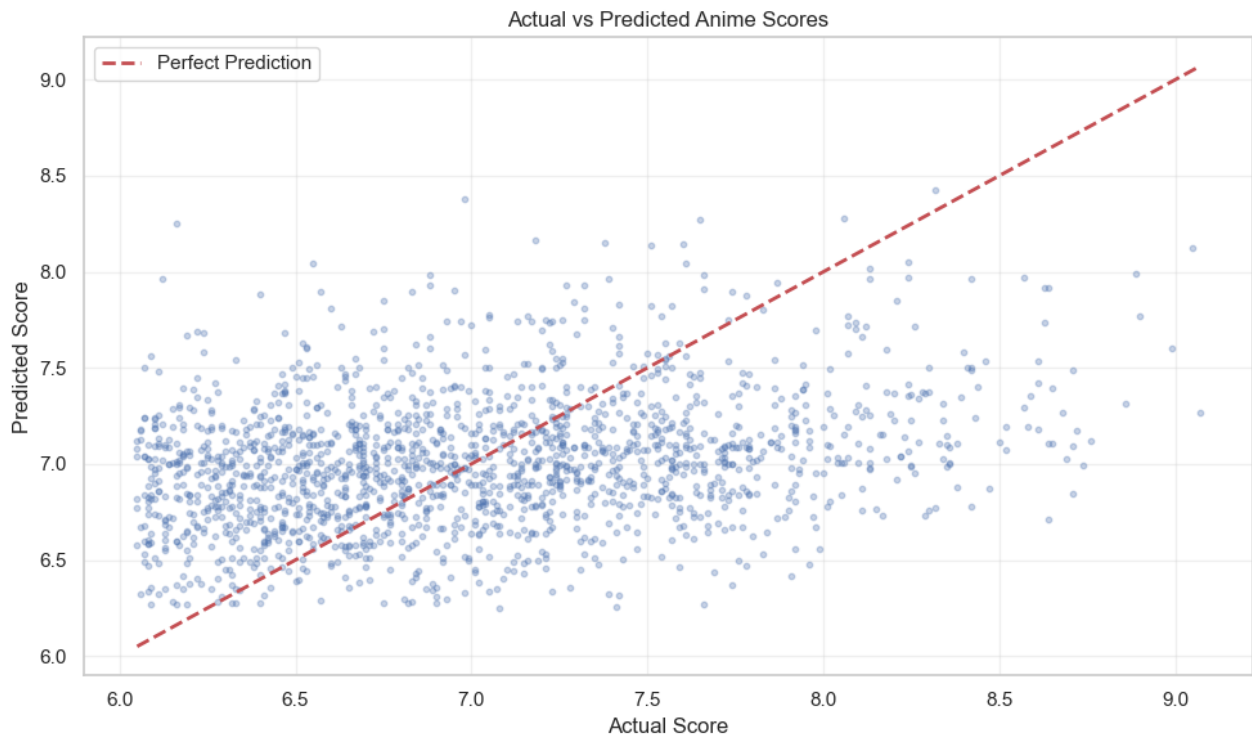
Key Insights:

- Year is the most important predictor
- Episodes and genre count also matter
- Studio presence has minimal impact
- Overall: scores are HARD to predict ($R^2=0.02$)

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20. ML Analysis: Actual vs Predicted Scores

Scatter plot comparing actual anime scores to ML model predictions.



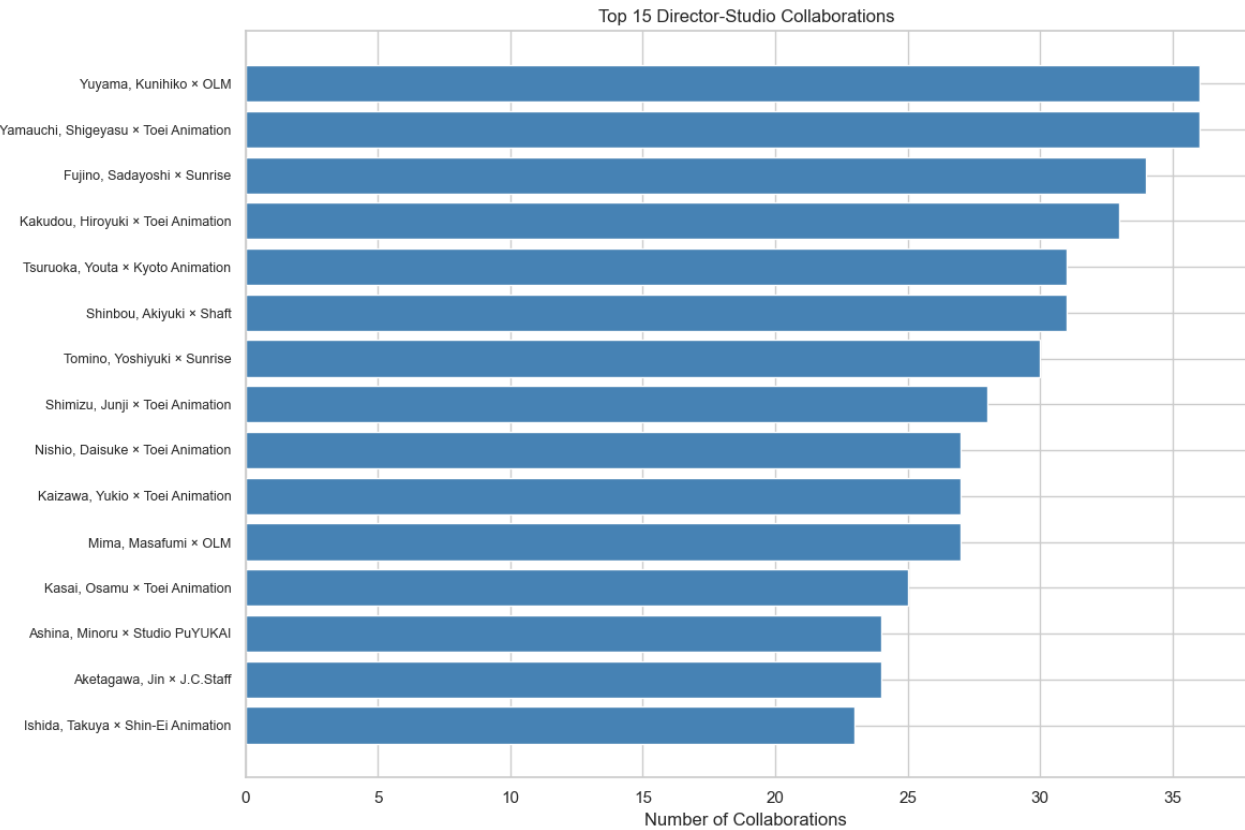
Key Insights:

- Wide scatter indicates poor predictive power
- Anime quality is subjective and complex
- Basic features insufficient for accurate prediction
- Human judgment and creativity defy simple models

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21. Network Analysis: Director-Studio Collaborations

Top 15 director-studio collaboration pairs showing key partnerships in the industry.



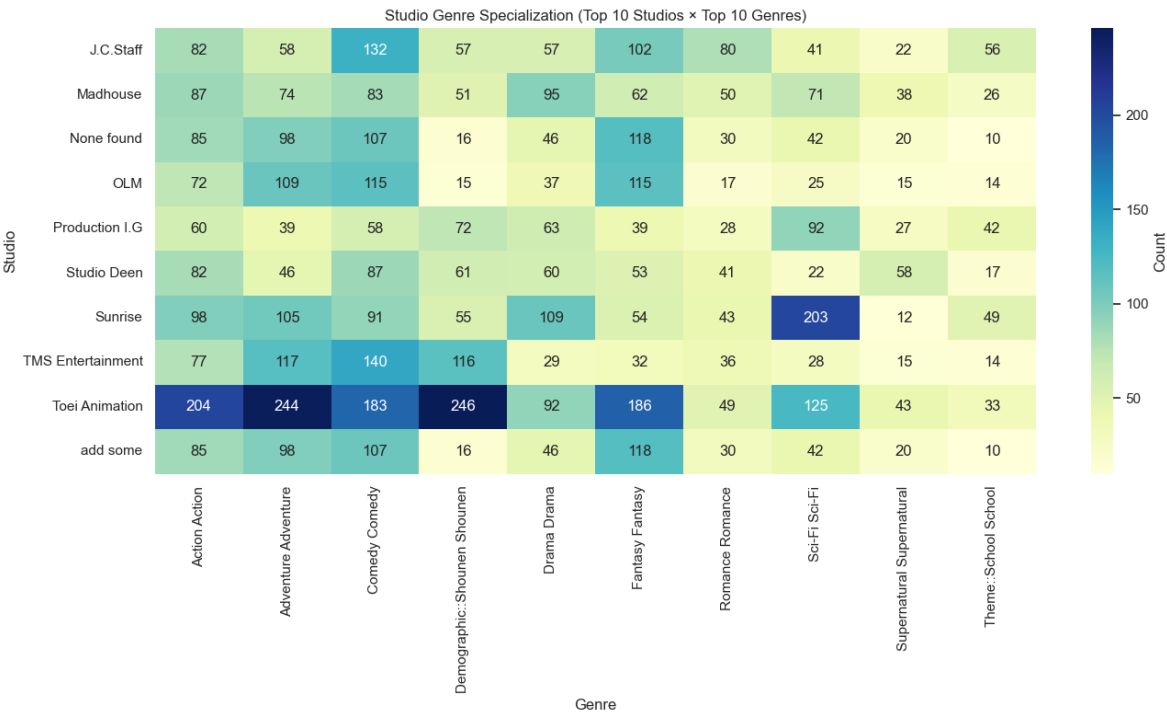
Key Insights:

- Clear partnership patterns identified
- Some directors consistently work with same studios
- Successful collaborations repeat over time
- Studio-director fit impacts quality

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22. Network Analysis: Studio Genre Specialization

Heatmap showing which genres each top studio specializes in.



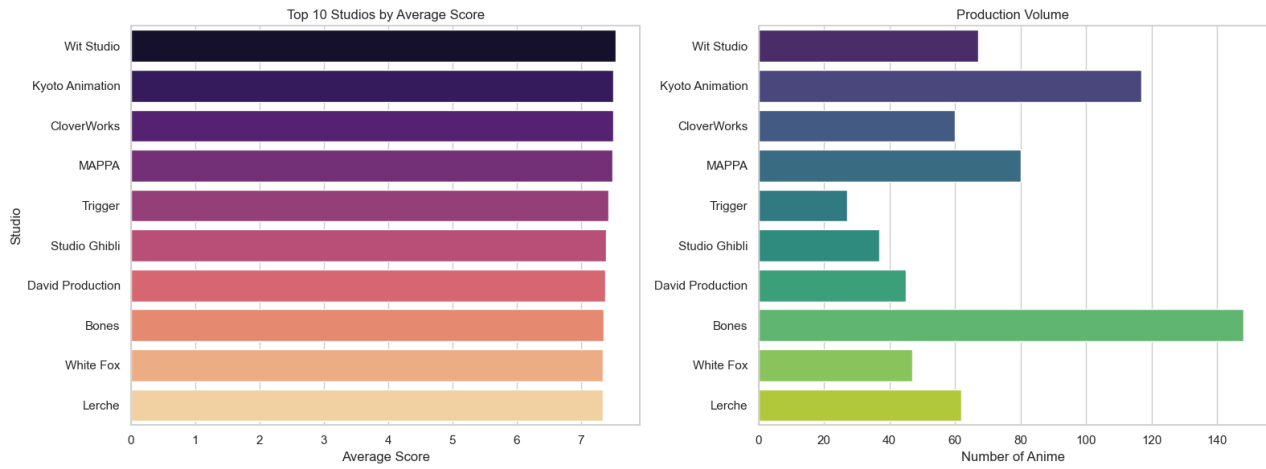
Key Insights:

- Studios show distinct genre preferences
- Some studios specialize, others diversify
- Genre specialization correlates with quality
- Studios build expertise in specific genres

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23. Comparative Analysis: Studio Quality vs Volume

Dual bar chart comparing top studios on both average score and production volume.



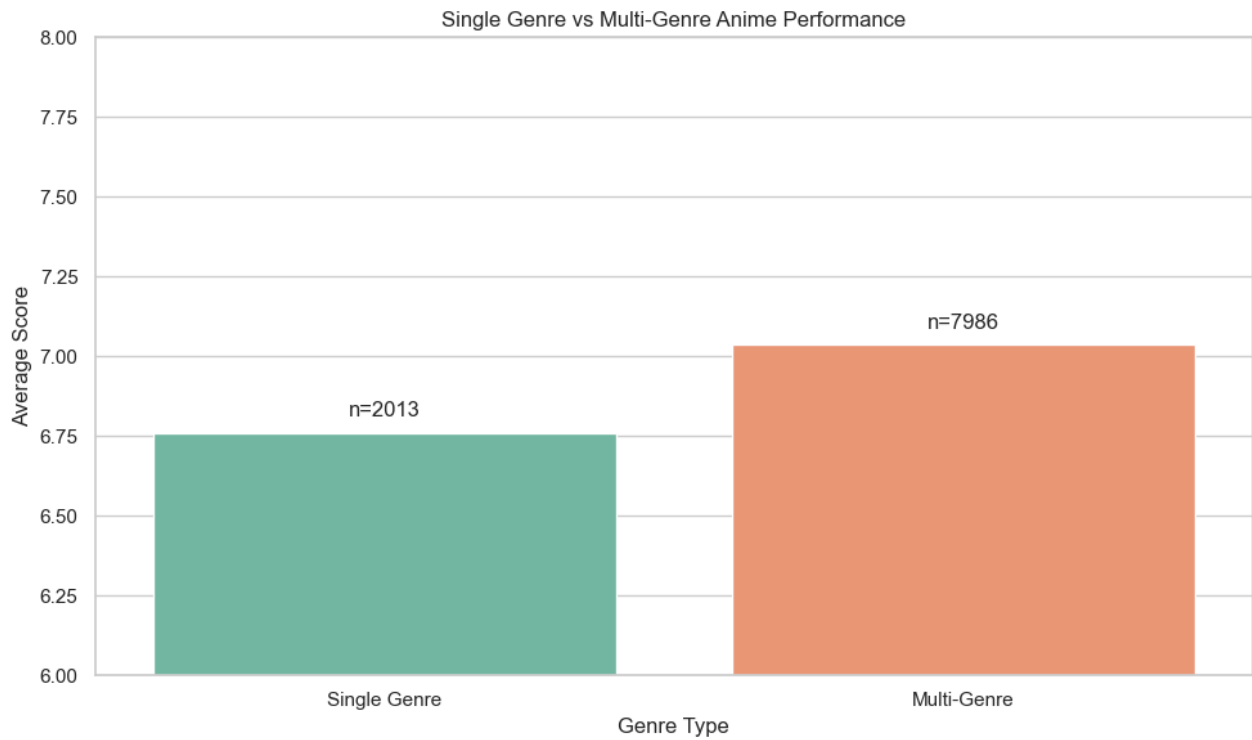
Key Insights:

- Top studios balance BOTH quality AND quantity
- High volume does not necessarily mean low quality
- Best studios maintain standards at scale
- Consistency is key to studio reputation

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24. Comparative Analysis: Single vs Multi-Genre Performance

Bar chart comparing average scores of single-genre vs multi-genre anime.



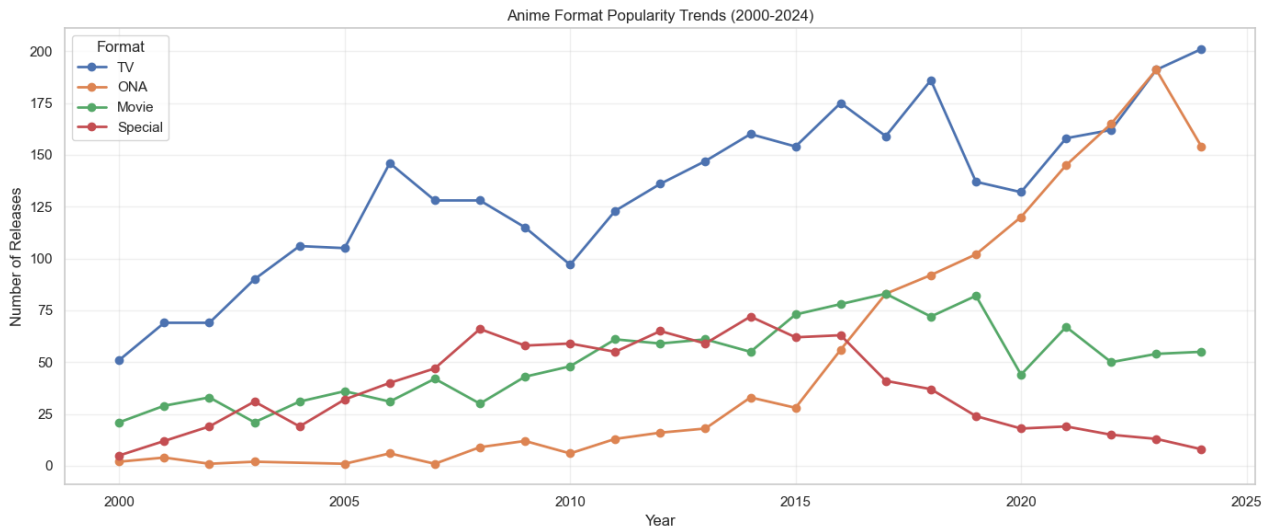
Key Insights:

- Multi-genre and single-genre perform similarly
- Genre mixing does not hurt or help scores significantly
- Quality depends on execution, not genre count

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25. Comparative Analysis: Format Popularity Trends (2000-2024)

Line chart tracking the popularity of different anime formats over time.



Key Insights:

- TV format dominates and continues to grow
- Movies show steady growth since 2000
- OVA format has declined
- TV remains the primary anime medium

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Conclusion & Key Takeaways

This comprehensive 4-phase analysis of 9,999 anime titles reveals several critical insights about the anime industry:

Industry Growth:

- Massive production increase post-2010 (5x growth)
- Quality remains stable despite volume explosion
- No score inflation detected over decades

Quality Factors:

- Popularity strongly predicts quality (correlation)
- Top studios (Kyoto Animation, MAPPA) consistently deliver
- Director and voice actor talent significantly matter
- Longer series correlate with higher scores (survivorship bias)

Trends:

- Episode counts decreasing (shift to 12-13 ep seasons)
- Genre preferences evolving over time
- Winter season dominates releases
- TV format remains king, movies growing

Predictability:

- Anime scores are HARD to predict (ML $R^2=0.02$)
- Quality is subjective and complex
- Human creativity defies simple models

Interactive Dashboard Available:

A Plotly Dash web application has been created for interactive data exploration with year filters, format selection, and dynamic visualizations. Run: `python dashboard/app.py`

*Report generated using Python, Pandas, Seaborn, Matplotlib, and scikit-learn
Total Visualizations: 25+ | Analysis Date: January 2026*