Statistical Insights from the Scatter Plot

The scatter plot shows the Average Jaccard and Adam/Adar Scores for different seeds. Here are some statistical insights:

Range and Distribution

- **Jaccard Scores**: The Jaccard scores (blue dots) are tightly clustered between 0.0 and 0.5. This indicates that the Jaccard similarity between the predicted and actual nodes is generally low.
- **Adam/Adar Scores**: The Adam/Adar scores (orange crosses) are more spread out, ranging from approximately 1.0 to 4.0. This suggests a higher and more variable similarity measure compared to the Jaccard scores.

Central Tendency

- **Jaccard Scores**: The mean Jaccard score appears to be around 0.2 to 0.3, given the clustering of points.
- **Adam/Adar Scores**: The mean Adam/Adar score seems to be around 2.5 to 3.0, as the points are more densely populated in this range.

Variability

- **Jaccard Scores**: The Jaccard scores show low variability, indicating that the model's performance in terms of Jaccard similarity is consistent across different seeds.
- **Adam/Adar Scores**: The Adam/Adar scores exhibit high variability, suggesting that the model's performance in terms of Adam/Adar similarity is more sensitive to the choice of seed.

Outliers

- There are no significant outliers in the Jaccard scores, as all points are within a narrow range.
- The Adam/Adar scores have a few points that are higher than the general cluster, indicating occasional higher similarity for certain seeds.

Correlation

- There is no apparent correlation between the seed values and the scores for both metrics. The scores are scattered randomly across the seed range, indicating that the seed does not systematically affect the scores.

Model Performance

- The consistently low Jaccard scores suggest that the model might not be very effective in predicting exact node matches.
- The higher and more variable Adam/Adar scores indicate that the model might be better at predicting nodes that are similar in terms of shared neighbors, but this performance is inconsistent.

Recommendations

- **Model Improvement**: Consider tuning the model parameters or exploring different architectures to improve the Jaccard scores.
- **Further Analysis**: Investigate why certain seeds result in higher Adam/Adar scores to understand the conditions under which the model performs better.
- **Additional Metrics**: Evaluate the model using other similarity metrics to get a more comprehensive understanding of its performance.