

Abstract– Twitter is one of the popular social media for sharing opinions, one of which is about movie reviews. There are many opinions related to movie reviews on Twitter social media so the assessment of a movie can vary. Therefore, sentiment analysis at the aspect level is needed to classify film reviews in order to provide optimal results as analytical material in making films that can increase audience satisfaction. This research was conducted by building a system using the Gated Recurrent Unit (GRU) method to perform sentiment analysis at the aspect level on movie reviews taken from Twitter. The aspects used in this research are plot, acting, and director. This research also conducted experiments by combining three techniques, which are feature extraction using TF-IDF, feature expansion with GloVe, and the application of SMOTE to improve model accuracy. The results show that each test scenario can improve the accuracy and F1-Score values of each aspect. The final value of each aspect is the accuracy value for the plot aspect is 70.40%(+7.62%) and F1-Score is 70.35%(+9.70%), the accuracy value is 93.75%(+6.28%) and F1-Score is 93.70%(+65.19%) for the acting aspect, and the accuracy value is 90.44%(+4.60%) and F1-Score is 90.17%(+122.80%) for the director aspect.

Keywords: Sentiment Analysis, Aspect, Gated Recurrent Unit, GloVe, SMOTE