

ABSTRACT

My TelU application plays an important role in facilitating students to access various academic services, such as attendance scanning, grade checking, and class schedule viewing. This study aims to identify user sentiments towards My TelU application based on aspects related to quality of application derived from user reviews. Analysis focuses on aspects of attendance scanning, class schedule checking, and grade examination to determine whether each aspect receives positive, negative, or neutral responses from users. Results of this analysis are expected to serve as evaluation for My TelU application in efforts to improve quality of its services according to user feedback. Following sequential stages were carried out to collect, process, and analyze data. This process is necessary to ensure the project yields accurate results. These stages include data collection, data preprocessing, data classification, training Support Vector Machine (SVM) algorithm, model testing, as well as analysis and evaluation. In this section, implementation and testing are conducted based on procedures described in Chapter 3, starting from data collection, preprocessing, classification, SVM training, model testing, and evaluation and analysis. Based on research and analysis conducted, it can be concluded that the Support Vector Machine (SVM) algorithm can optimize sentiment classification on a limited dataset of My TelU application reviews. Accuracy improved from 87.44% in the default SVM model to 89.95% after hyperparameter tuning using Grid Search, with best parameters being $C=100$, $\text{kernel}='rbf'$, and $\text{gamma}='scale'$. F1-score for neutral class, which previously had lowest performance (0.60), increased to 0.67, while f1-scores for positive and negative classes improved to 0.95 and 0.92, respectively

Keywords: My TelU, Aspect-Based Sentiment Analysis(ABSA), SVM, Sentiment Classification, Hyperparameter Tuning.