



**FORECASTING GAME RATINGS THROUGH SENTIMENT
ANALYSIS OF YOUTUBE COMMENTS ON THE GTA VI
TRAILER 2 USING LSTM NETWORKS**

FINAL PROJECT

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**UNIVERSITAS
MERCU BUANA**

INFORMATICS STUDY PROGRAM

FACULTY OF COMPUTER SCIENCE

MERCU BUANA UNIVERSITY

JAKARTA

2026



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Submitted as one of the requirements for obtaining a bachelor's degree

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PREFACE

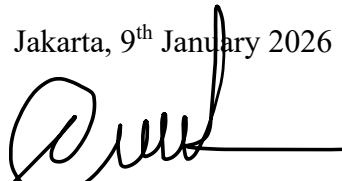
All praise and gratitude to Allah the Almighty for His blessings and grace, which have helped the author to complete this final project proposal entitled “Forecasting Game Ratings Through Sentiment Analysis of YouTube Comments on the GTA VI Trailer 2 Using LSTM Networks.” This proposal serves as a partial requirement for the completion of the undergraduate (S1) program in Informatics Engineering at Universitas Mercu Buana.

The author realizes that this proposal is not without flaws, as true perfection belongs only to Allah SWT. Therefore, any constructive suggestions or feedback are sincerely appreciated. This proposal was made possible with the support, motivation, guidance, and prayers of many individuals. The author would like to express sincere appreciation and thanks to:

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FORECASTING GAME RATINGS THROUGH SENTIMENT ANALYSIS OF YOUTUBE COMMENTS ON THE GTA VI TRAILER 2 USING LSTM NETWORKS

ABSTRACT

Social media platforms like YouTube host user content which serves as an invaluable source of public opinions regarding impending releases, especially in the case of highly anticipated titles like Grand Theft Auto VI. This final project proposes a predictive model to estimate the rating of the game based on YouTube comment analysis from the GTA VI Trailer 2, involving a transfer learning process whereby a Bidirectional Long Short-Term Memory (Bi-LSTM) network, bolstered in-circuit with a Self-Attention mechanism, had been trained on the IMDb movie review dataset. The proposed neural network design boasted a 90.53% accuracy level, unearthing an exclusive public temperament about GTA VI, which had a distinctively high neutral response coupled with remarkably little public outcry, especially in comparison to other AAA titles. These results, transformed through a Random Forest regression algorithm, which equated opinions related to the prospect of GTA VI from 20 similar game trailers, estimate the potential rating from the release by IGN to be 9.54/10. This study, therefore, underlines the potential offered by deep learning algorithms regarding early projections about market consequence, especially in major video game titles, through opinions extracted from social networks.

Keywords: LSTM, Sentiment Analysis, YouTube Comments, GTA VI, Game Rating Prediction, Deep Learning, Natural Language Processing, Social Media Analysis

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