

ABSTRAK

Davindra Givano Kevin Rizadi. 2026. Sistem Analisis Sentimen Komentar Tiktok tentang Program Makan Bergizi Gratis Berbasis Web Menggunakan *Deep Learning* Arsitektur *Bidirectional Long Short-Term Memory* (BiLSTM). Skripsi. Program Studi Teknik Informatika, Fakultas Teknik, Universitas PGRI Madiun. Pembimbing (I) Pratiwi Susanti, S.Kom., M.MT. Pembimbing (II) Yessi Yunitasari, S.Kom., M.Cs

Program Makan Bergizi Gratis menjadi salah satu topik yang banyak diperbincangkan di TikTok sehingga diperlukan analisis sentimen untuk mengetahui opini masyarakat. Penelitian ini bertujuan mengembangkan sistem analisis sentimen berbasis web menggunakan metode *Bidirectional Long Short-Term Memory* (BiLSTM) yang mampu mengklasifikasikan komentar ke dalam kategori positif, negatif, dan netral. Sistem dikembangkan menggunakan metode *Waterfall* dengan memanfaatkan React.js, FastAPI, TensorFlow, dan Playwright. Hasil pengujian model memperoleh akurasi sebesar 95,88%, sedangkan pengujian *Black Box Testing* menunjukkan seluruh fungsi sistem berjalan dengan baik. Selain itu, pengujian *System Usability Scale* (SUS) menghasilkan skor rata-rata 83,25, yang menunjukkan bahwa sistem memiliki tingkat usability yang sangat baik. Dengan demikian, sistem yang dikembangkan mampu membantu pengguna menganalisis opini masyarakat secara cepat, akurat, dan mudah digunakan.

Kata Kunci: Analisis Sentimen, TikTok, Program Makan Bergizi Gratis, *Bidirectional Long Short-Term Memory* (BiLSTM).

ABSTRACT

Davindra Givano Kevin Rizadi. 2026. *Web-Based Sentiment Analysis System for TikTok Comments on the Free Nutritious Meal Program Using the Bidirectional Long Short-Term Memory (BiLSTM) Deep Learning Architecture*. Undergraduate Thesis. Informatics Engineering Study Program, Faculty of Engineering, Universitas PGRI Madiun. Advisor (I): Pratiwi Susanti, S.Kom., M.MT. Advisor (II): Yessi Yunitasari, S.Kom., M.Cs.

The Free Nutritious Meal Program has become one of the most discussed topics on TikTok, making sentiment analysis necessary to identify public opinion. This study aims to develop a web-based sentiment analysis system using the Bidirectional Long Short-Term Memory (BiLSTM) method to classify comments into positive, negative, and neutral categories. The system was developed using the Waterfall method with React.js, FastAPI, TensorFlow, and Playwright. The model achieved an accuracy of 95.88%, while Black Box Testing showed that all system functions operated as expected. In addition, the System Usability Scale (SUS) evaluation obtained an average score of 83.25, indicating that the system has excellent usability. Therefore, the proposed system can assist users in analyzing public opinion quickly, accurately, and efficiently.

Keywords: Sentiment Analysis, TikTok, Free Nutritious Meal Program, Bidirectional Long Short-Term Memory (BiLSTM).