

ANALISIS SENTIMEN TERHADAP KANDIDAT NOMINASI PRIMER
PARTAI REPUBLICAN UNTUK PEMILIHAN PRESIDENSIAL AMERIKA
SERIKAT GRADIENT DESCENT

Nama: Jason Jabez Cuwendi

Program Studi: Data Science and Artificial Intelligence

Pembimbing:

Vincentius Riandaru P., S.Kom., M.Sc.

Endah Asmawati, M.Si

ABSTRAK

Pemilihan presidensial di Amerika Serikat dilaksanakan setiap 4 tahun, dan pemilihan presidensial yang selanjutnya akan dilaksanakan pada 2024. Pada pemilihan presidensial di Amerika Serikat, masyarakat dapat memilih pasangan presiden dan wakil presiden. Pasangan presiden dan wakil presiden yang memiliki elektabilitas tertinggi berasal dari dua partai terbesar Amerika Serikat, *Republican* dan *Democrat*. Pasangan presiden dan wakil presiden wajib mengikuti pemilihan primer di suatu partai sebelum lanjut ke tahap pemilihan presidensial. Terdapat kesulitan memprediksi hasil pemilihan primer karena kurangnya data relevan. Untuk itu, dibuat sistem analisis sentimen dengan metode *Stochastic Gradient Descent*, yang mengambil data dari berbagai media sosial. Pada dataset sebanyak 300 data dari media sosial yang telah melalui preprocessing, dengan pembagian data training 80% dan data testing 20%, sistem mencapai akurasi 74,1% dalam mengklasifikasikan sentimen dengan tepat. Dengan adanya sistem ini, penyurvei atau masyarakat dapat dengan mudah melihat sentimen masyarakat di media sosial mengenai kandidat-kandidat pemilihan primer partai *Republican* untuk mempermudah proses prediksi hasil pemilihan primer.

Kata kunci: Analisis sentimen, media sosial, pemilihan presidensial, pemilihan primer, *SGD*, *klasifikasi*

SENTIMENT ANALYSIS OF REPUBLICAN PRIMARY NOMINATION
CANDIDATES FOR THE UNITED STATES PRESIDENTIAL
ELECTION GRADIENT DESCENT

Name: Jason Jabez Cuwendi

Major: Data Science and Artificial Intelligence

System Contributors:

Vincentius Riandaru P., S.Kom., M.Sc.

Endah Asmawati, M.Si

ABSTRACT

Presidential elections in the United States of America are held every 4 years, and the next presidential election will be held in 2024. In presidential elections in the United States of America, the public can choose a pair of a president and a vice president. The two president and vice president pairs with the highest electability come from the two biggest political parties in the United States of America, Republican and Democrat. A pair of a president and a vice president must undergo a primary election inside a party before going on to the presidential election. There exists a difficulty in predicting the results of a primary election due to the lack of relevant data. As such, a sentiment analysis system with Stochastic Gradient Descent, sourcing data from various social medias, is created. On a dataset that consists of 300 data from social media that have gone through preprocessing, with the proportion of training data being 80% and of testing data being 20%, this system achieved an accuracy of 74,1% in classifying sentiments correctly. With the creation of this system, surveyors or the public can easily see the sentiment of the social media public about the Republican primary election candidates to ease the process of predicting the results of the primary election.

Keywords: Sentiment analysis, social media, presidential election, primary election, SGD, classification