PERINGKASAN OTOMATIS RISALAH RAPAT DENGAN METODE *TRANSFORMER* DAN *LONG SHORT-TERM MEMORY*

SKRIPSI

Diajukan untuk Memenuhi Sebagian dari
Syarat Memperoleh Gelar Sarjana Komputer
Program Studi Ilmu Komputer

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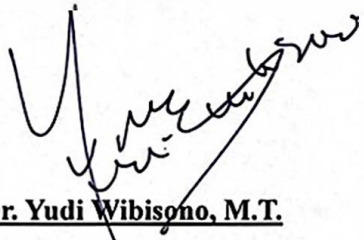
DISETUJUI DAN DISAHKAN OLEH PEMBIMBING:

Pembimbing I,



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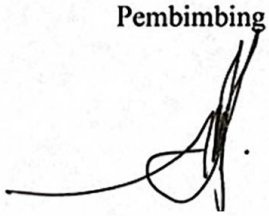
Pembimbing II,



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PERNYATAAN

Dengan ini penulis menyatakan bahwa skripsi dengan judul "Peringkasan Otomatis Risalah Rapat dengan Metode *Transformer* dan *Long Short-Term Memory*" ini beserta seluruh isinya adalah benar-benar karya penulis sendiri. Penulis tidak melakukan penjiplakan atau pengutipan dengan cara-cara yang tidak sesuai dengan etika ilmu yang berlaku dalam masyarakat keilmuan. Atas pernyataan ini, penulis siap menanggung risiko/sanksi apabila di kemudian hari ditemukan adanya pelanggaran etika keilmuan atau ada klaim dari pihak lain terhadap keaslian karya penulis ini.

Bandung, Agustus 2024

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PERINGKASAN OTOMATIS RISALAH RAPAT DENGAN METODE *TRANSFORMER* DAN *LONG SHORT-TERM MEMORY*

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ABSTRAK

Risalah merupakan catatan resmi yang mendokumentasikan semua hal yang dibahas selama rapat. Risalah rapat yang panjang seringkali menyulitkan pembaca untuk secara cepat mengindentifikasi dan memahami informasi utama rapat. Sehingga dibutuhkan suatu sistem peringkasan otomatis dalam upaya mempersingkat waktu dan mengurangi tenaga dalam memahami risalah rapat. Penelitian ini bertujuan untuk mengembangkan dan mengevaluasi sistem peringkasan otomatis risalah rapat. Metode peringkasan teks otomatis yang digunakan yaitu dengan menggunakan Transformer dan Long Short-Term Memory. Dalam pengembangannya, penelitian ini menggunakan dataset risalah rapat yang sudah dikumpulkan dan dibuat referensi ringkasannya secara manual. Hasil penelitian menunjukkan bahwa sistem peringkasan otomatis yang dikembangkan dengan model Transformer mampu menghasilkan ringkasan dengan kinerja yang lebih baik dibandingkan dengan model LSTM. Model Transformer dengan skenario eksperimen *fine-tuning* dua dataset dan tanpa praproses data mencapai ROUGE-1 tertinggi sebesar 39.1287 dan ROUGE-L tertinggi sebesar 22.7729. Sedangkan ROUGE-2 tertinggi sebesar 17.5072 didapatkan dari model yang di-*fine-tune* dengan satu dataset dan tanpa praproses data.

Kata Kunci: *Deep Learning*, LSTM, Peringkasan teks otomatis, Risalah Rapat, Transformer Longformer.

AUTOMATIC SUMMARIZATION OF MEETING MINUTES WITH TRANSFORMER AND LONG SHORT-TERM MEMORY

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ABSTRACT

Meeting minutes are official records that document everything discussed during a meeting. Long meeting minutes can often make it challenging for readers to quickly identify and understand the key information of the meeting. To address this issue, an automatic summarization system is needed to save time and reduce the effort required to grasp the content of the minutes. This research aims to develop and evaluate an automatic summarization system for meeting minutes. The methods used for automatic text summarization include Transformer models and Long Short-Term Memory (LSTM) models. For this development, the research utilizes a dataset of meeting minutes that has been collected and manually summarized. The results indicate that the Transformer-based summarization system performs better than the LSTM-based system. The Transformer model fine-tuned on two dataset without data preprocessing achieved the highest ROUGE-1 score of 39.1287 and the highest ROUGE-L score of 22.7729. Meanwhile, the highest ROUGE-2 score of 17.5072 was achieved by the model fine-tuned on a single dataset without data preprocessing.

Keywords: *Automatic Text Summarization, Deep Learning, LSTM, Meeting Minutes, Transformer Longformer.*

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DAFTAR LAMPIRAN

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