



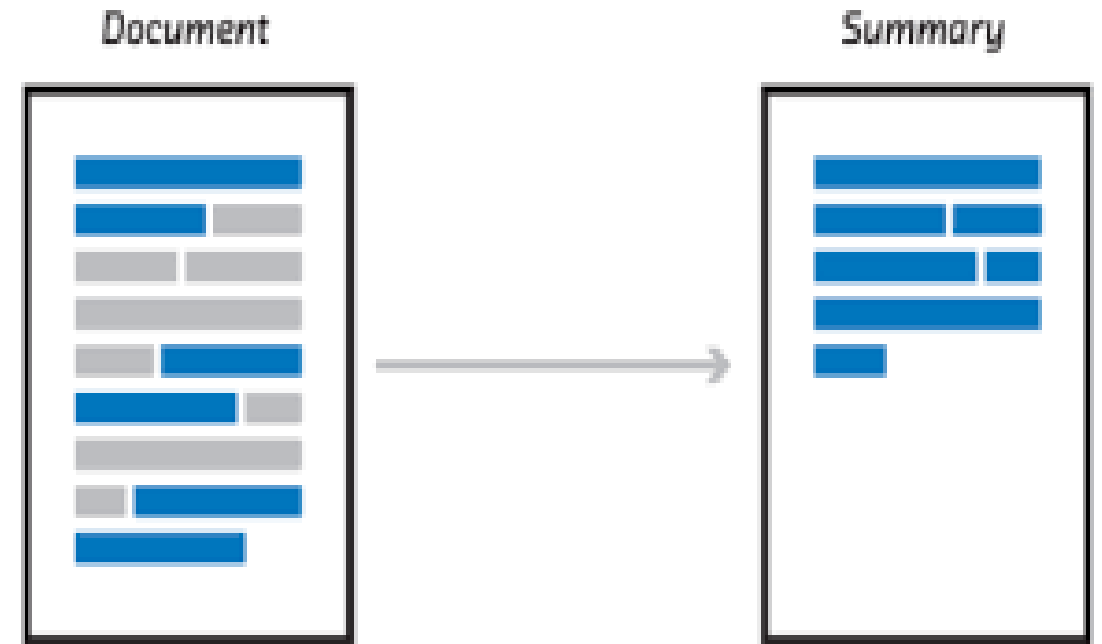
**JEEVITHA
BETHULASHMI K**

**TEXT FILE SUMMARY
GENERATOR**

PROJECT TITLE

TEXT FILE SUMMARY GENERATOR

Condensing Information
at your finger tips



Agenda

- Introduction
- Problem Statement
- Project Overview
- End Users
- Solution and Value Proposition
- Unique Features ("The Wow")
- Modelling Approach
- Results and Evaluation



PROBLEM STATEMENT



- The exponential growth of digital text data presents challenges in efficiently extracting meaningful insights. Traditional summarization methods are often inadequate, producing summaries that lack coherence and overlook crucial details. Manual summarization is time-consuming and impractical for large volumes of text. Real-time access to accurate summaries is increasingly vital. There's a clear need for advanced text summarization solutions that leverage cutting-edge techniques to overcome these challenges and provide timely, coherent, and contextually relevant summaries.
- Highlight the shortcomings of traditional summarization techniques in capturing context and semantics accurately.

PROJECT OVERVIEW



Objectives:

Outline the primary goals of the project, such as developing an advanced text summarization tool.

Methodology:

Briefly describe the approach taken, emphasizing the utilization of state-of-the-art BERT models.

1. User Profiles: Provide examples of different user groups (e.g., students, researchers, journalists) and their use cases for the summarization tool.
2. Benefits: Illustrate how the tool can streamline their workflows, improve comprehension, and save time.

**WHO ARE THE END
USERS ?**



YOUR SOLUTION AND ITS VALUE PROPOSITION

- **Functionality:** Detail the key features of the summarization tool, such as automatic text processing, customizable summaries, and integration options.
- **Value Proposition:** Highlight the advantages of using BERT-based summarization, including improved accuracy, context awareness, and scalability.



1. **Advanced Semantic Understanding:** Explain how BERT's bidirectional architecture enables a deeper understanding of the text context, resulting in more informative summaries.
2. **Customization and Adaptability:** Showcase how the tool can be tailored to specific domains or user preferences, enhancing its versatility.
3. **Real-Time Capabilities:** Emphasize the ability to generate summaries on-the-fly for live or dynamic content streams, demonstrating the tool's agility and responsiveness.



**THE WOW IN MY
SOLUTION**

MODELLING

BERT Architecture: Provide an overview of BERT's architecture, including its pre-training and fine-tuning phases.

Adaptation for Summarization: Describe the modifications made to BERT to adapt it for text summarization tasks, such as sequence-to-sequence modeling and attention mechanisms.



RESULTS

BEFORE:

```
# display file content
FileContent

'Indian Space Research Organisation (ISRO) is the space agency of India. The organisation is involved in science, engineering and technology to harvest the benefits of outer space for India and the mankind. ISRO is a major constituent of the Department of Space (DOS), Government of India. The department executes the Indian Space Programme primarily through various Centres or units within ISRO.\n\nISRO was previously the Indian National Committee for Space Research (INCOSPAR), set up by the Government of India in 1962, as envisioned by Dr. Vikram Sarabhai. ISRO was formed on August 15, 1969 and superseded INCOSPAR with an expanded role to harness space technology. DOS was set up and ISRO was brought under DOS in 1972.\n\nThe prime objective of ISRO/DOS is the development and application of space technology for various national needs. To fulfil this objective, ISRO has established major space systems for communication, television broadcasting and meteorological services; resources monitoring...
```

```
[6] # total characters in the file
len(FileContent)
```

2764

AFTER:

Output

```
for input in inputs:
    output = model.generate(**input)
    print(tokenizer.decode(*output, skip_special_tokens=True))

ISRO is a major constituent of the Department of Space (DOS), Government of India. ISRO was previously the Indian National Committee for Space Research (INCOSPAR) The prime objective of ISRO/DOS is the development and application of space technology for various national needs.
```

Text reduced from 2000+ words to few words!!!

Thank you

