

AI Based Documnet Summarisation Tool

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Annotation

The AI-Based Document Summarization Tool is a website that helps you quickly summarize documents. It uses computer language techniques to find information in your documents. This information is then shown in a way that's easy to read and understand.

- The AI-Based Document Summarization Tool has a user- interface that makes it easy to use.
- The AI-Based Document Summarization Tool works on all devices and browsers.

You can easily upload your document process it and view the summary with the AI-Based Document Summarization Tool. Using the AI-Based Document Summarization Tool saves you time when analyzing documents.

Keywords: AI, NLP, Document Summarization, Frontend Development, Text Processing, Web Application, Machine Learning.



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I. Introduction:

The amount of content is growing really fast and people are having a hard time reading everything. Document summarization is very helpful because it lets us find the parts of a text quickly. This project is about making a simple and easy to use interface that works with intelligence models to give us quick and accurate summaries of documents. The goal is to make it easy for users to get the information they need from document summarization. The project uses document summarization to make things easier, for users.

II. Proposed AI-Based Solution

The system has a website where you can:

- Upload or paste your text
- Start a summary, with AI
- See summaries away

The website makes sure:

It works well on phones and computers

- The summary data looks easy to read
- You can interact with it easily or alternatively The system has a website where you can do things likes
- Upload your text or just paste it in

- Use AI to make a summary
- View summaries instantly

The website is designed to:

1. Work well on devices and desktops
2. Show summarized data in a way
3. Give you an experienceThe system provides a website with these features: You can upload text or paste it inThe AI will summarize it for you You can see the summaries away

he website is built to:

- * Be easy to use on mobile and desktop
- * Make summaries look simple and clear
- * Let you interact with the data

Motivation

We need to reduce the time we spend reading documents. This will help students and professionals get work done. We should make it easy for people to use intelligence. The artificial intelligence models are very complicated so we need an user interface for these artificial intelligence operations.

There is a gap between the artificial intelligence models and the people who use them so we need to bridge this gap, between the artificial intelligence models and the end users of the artificial intelligence models.

III. Related Work

Previous systems used rule-based or extractive summarization techniques but lacked:

- User-friendly interfaces
- Real-time interaction
- Responsive design

Modern systems integrate AI with web technologies to enhance usability and accessibility.

IV. Research Methodology

I want to learn about Natural Language Processing techniques so I can understand how to summarize things. It is really important to me because I think it will help me create something. My goal is to make a user interface that's easy for people to use. I believe this is a part of making something that people will enjoy. When the user interface is easy to use people will be happy to use it. Will not get frustrated. Next I have to link the user interface to the Artificial Intelligence model. This step will take some time. It is necessary. I need to test the Natural Language Processing system to see if it is user-friendly. I want to know if the Natural Language Processing system works well and if people can use it without getting confused. The main thing for me is to make sure the Natural Language Processing system is good for users. I want users to be able to use the Natural Language Processing system. I am focusing on the Natural Language Processing system because I want it to be the best it can be for users. I care about the Natural Language Processing system. I want to make sure it helps users. I am working on the Natural Language Processing system to make it better. The Natural Language Processing system is important, to me. I want to make sure the Natural Language Processing system works well.

Phases of Event driven notification broadcasting service Web development

So when we are talking about summarization we have to go through some steps. These steps are pretty similar.

We have to do the following things:

- Data collection
- Preprocessing
- Feature extraction
- Output generation

These steps are important, for summarization.

V. Project Development

1. Requirement Analysis Phase

We have to find out what users want from our Project Development. Users want to upload files. They want to get fast results from our Project Development. We need to decide where users will upload files and where the results will show up in our Project Development. Our Project Development design must work well on all devices like computers and phones.

2. System Design Phas

We will make the webpage layout for our Project Development using HTML and We need to plan how to connect our Project Development to the backend AI using an API.

Making wireframes will help us see what our Project Development will look like.

3. Implementation Phase

We will build the frontend of our Project Development using HTML, CSS and JavaScript.

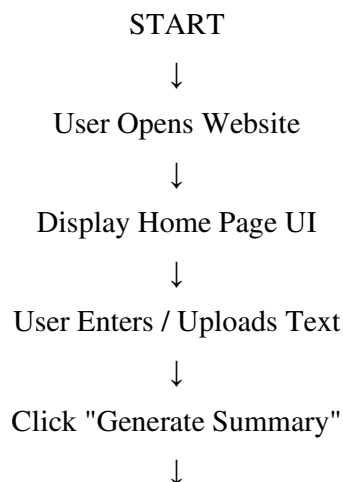
The next step is to connect our Project Development to the backend API that summarizes content. Our Project Development must update the content dynamically so it always shows the information.

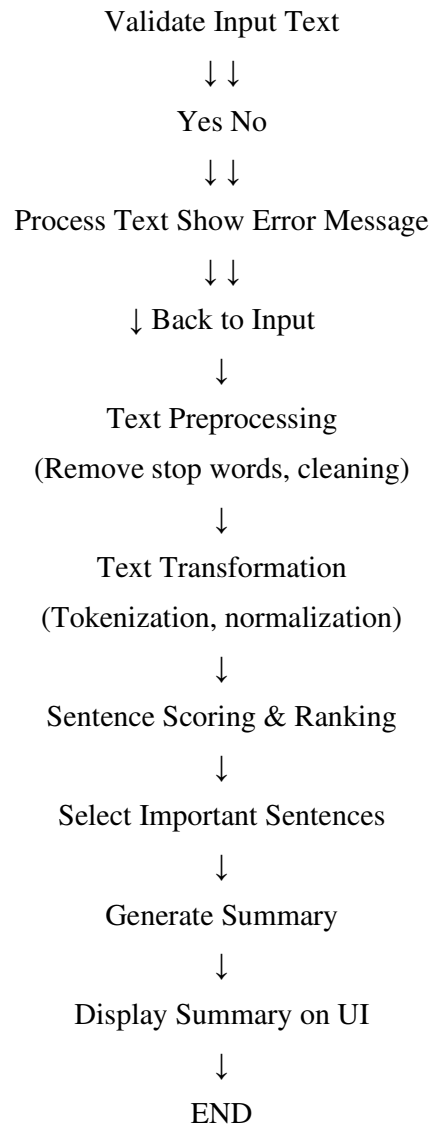
4. Testing Phase

We have to test if the user interface of our Project Development works well on all devices. We need to make sure the summary displays correctly in our Project Development.

We also need to check if our Project Development works on all browsers, like Chrome and Firefox.

- Related flow





Data Preprocessing and Analysis

1. Collecting Information

We need to get text data from documents and articles and reports.

2. Data Cleaning

The next step is to remove all the symbols and noise from the data.

3. Data Transformation

Now we have to convert the text into a format.

➤ Text Processing

This includes things, like Tokenization. We do Stop-word removal.

➤ Normalization

So we do Lowercasing and Stemming or Lemmatization to make Data Preprocessing and Analysis easier. We have to do Data Preprocessing and Analysis.

4. Data Analysis

Descriptive Analysis

I take a look, at the length of the text and I also check how often each word is used in the Data Analysis.

➤ Correlation Analysis

I want to see which keywords are actually connected to each other in the Data Analysis.

➤ Feature Selection

I choose the words and sentences that really matter in the Data Analysis.

➤ Visualization

I show the results of the Data Analysis using charts and by highlighting the main parts of the text.

Outcome

We need to make sure we get concise summaries. This will really help improve the user experience. When we have concise summaries it makes it easier for us to understand documents faster. This is, about getting better at understanding documents so we can get to the point of faster document understanding.

Proposed Algorithm

The system is going to use an algorithm that deals with student enquiries and turns them into admissions that are confirmed.

Step 1: First we need to work with the input text.

Step 2: We have to preprocess the data.

Step 3: Then we score the sentences. Rank the sentences.

Step 4: After that we select the sentences.

Step 5 Finally we use these sentences to generate a summary of the input text.

Step 6: We generate a summary of the input text by using the sentences.

Proposed Solution

To get started we need to work on the input text. First we have to preprocess the data. This is a step. Next we will score the sentences. Then we will rank the sentences. After that we will select the sentences.

Finally we will generate a summary from the sentences. We will use these sentences to make the summary. The goal is to create a summary, from the input text by using the top sentences.

Main Parts of the System

1. Finding the Right Content for Our Project

We need to identify the sentences in the content of our project.

2. Suggesting Key Points of Our Project

The system should highlight the information of our project.

3. Helping with Understanding of Our Project

The system will provide us with summaries of our project.

4. Stopping Irrelevant Data in Our Project

We want the system to stop showing us data, for our project.

Steps of Data Preprocessing:

Steps of getting the data ready

- First we need to collect the data.
- Then we have to clean the data.
- After that we do the data transformation.
- Next we do the data integration.
- Finally we select the features of the data.

The main steps involved in data preprocessing are described below.

1. Data Collection

We need to gather data from places like what users do and things that happen in the system, logs and databases. For this project data is things like event triggers which're like messages or alerts and information about users that we need to send them notifications. We are looking for Data Collection from sources.

2. Data Cleaning

In this part we get rid of Data that we do not need Data that's the same or Data that is wrong. This helps make notifications better by removing Data that's not good or not complete. We want to make sure our Data is accurate and useful for sending notifications.

3. Data Transformation

We take the Data. Make it into a format that we can use, like JSON. This means we make notification messages look nice make sure values are the same and get the Data ready so it can be used and shown on the website or app. Our goal is to make the Data useful for notifications.

4. Data Integration

We take Data from places like databases, APIs or services. Put it all together in one system. This way we have all the information we need in one place to make sure notifications are accurate. We are talking about Data Integration to make our system better.

5. Feature Selection

We pick the things like what kind of event it's when it happened who the user is and what the message says. This helps us make the system better by using the Data we need to make notifications work. We are selecting features, from the Data to make our notifications more effective. This is part of the Data process.

VI. RESULT EVOLUTION AND ANALYSIS

Lets take a look, at the results. We need to check how good the summaries are.

- We have to see if the summaries are easy to understand.

The original text and the summarized text need to be compared.

- We will check how well the summaries perform.

The time it takes to get a response is also important.

The evaluation and analysis of the summaries is very important.

- We will check how accurate the summaries are.

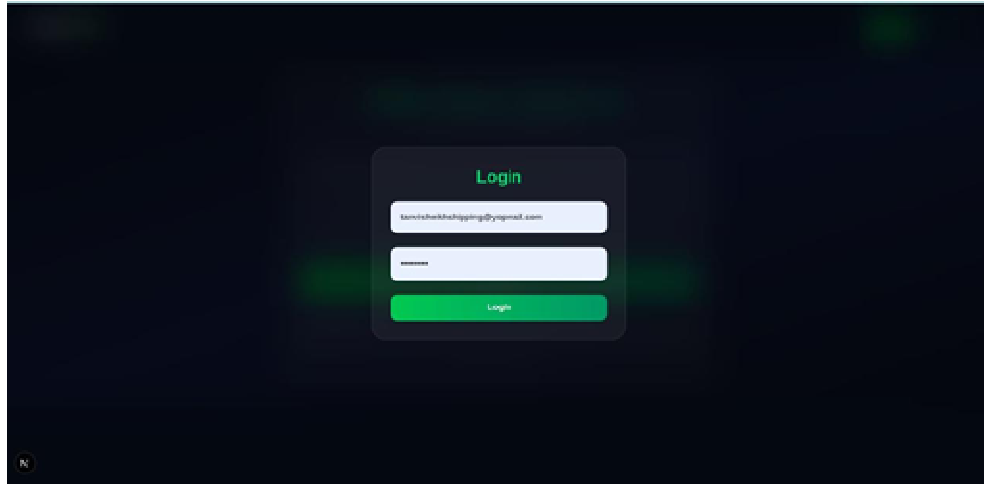


Figure 1: User Login Interface of the System

The image shows the Login Page of the **AI based Documnet summarisation tool** . This is where people who are already signed up can put in their information to get into the system. The page has spaces for the users email address and password. After that there is a Login button that checks who the user is and lets them into the system dashboard.

The way it looks is modern and easy to use. The background is dark. The login part is in the middle, which makes it easier to see and use. This is good because only the right people, like administrators or the people who handle admissionss in the AI based Documnet summarisation tool . The AI based Documnet summarisation tool has a system to make sure that only authorized users can get in.

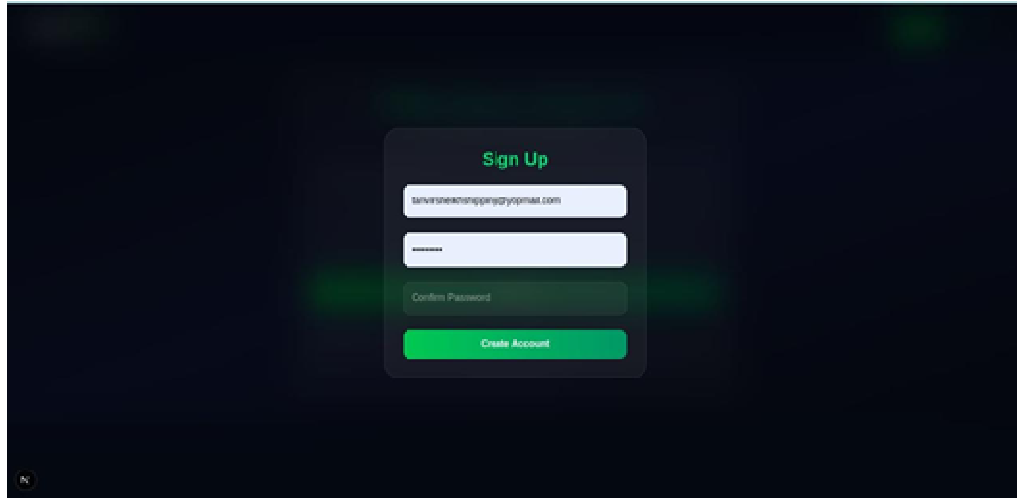


Figure 2: User Registration (Sign Up) Interface

The picture shows the Sign-Up or Registration Page of the AI based Documnet summarisation tool . This is where new users can make an account so they can use the system. The form has spaces for users to put in their email address, password and the password again to make sure everything is correct.

When users have put in all the information they can click the Create Account button to sign up for the system. The system checks that the password and the password again are the same before it lets users make an account. The **AI based Documnet summarisation tool** Sign-Up or Registration Page is

really important because it helps new users join the system in a way and take care of things related to admission.

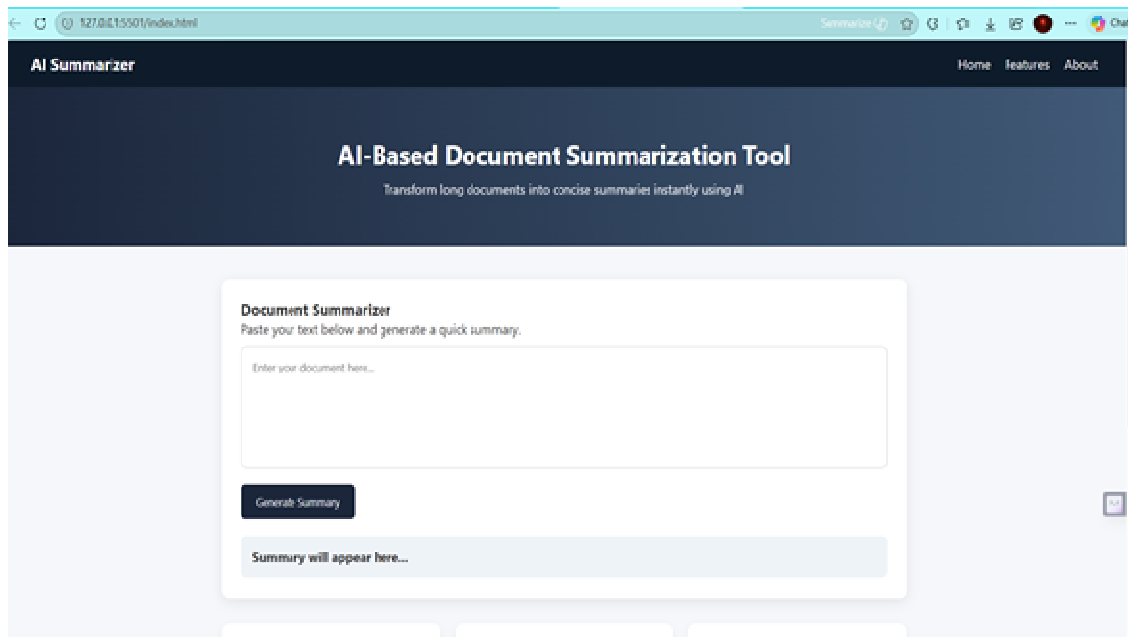


Figure 3: Homepage

The Home Page of the AI-Based Document Summarization Tool is where you start. It shows you what the system can do.

The homepage has a navigation bar.

- You can easily find sections like Home, Features and About.

The hero section is visually appealing.

- Tells you what the application is for.
- It says the tool uses Artificial Intelligence to make long documents short.

The main part of the homepage lets you try the tool.

- You can put in your text. Paste it.
- You click one button.
- The system gives you a version of your text right away.
- This shows how Natural Language Processing works.

The homepage also shows what makes the tool good.

- It works fast.
- It looks good on all devices.
- It is easy to use.
- You learn why the tool is helpful.

There is also an "About Project" section.

- It tells you what the project aims to do.
- It explains how it was made.

The homepage is like the entrance, to the tool.

- It looks professional.
- easy to use.
- It gives you an experience.

Conclusion

The Document Summarization Tool that uses intelligence is really good, at showing how making the front end of a website better can make artificial intelligence systems easier to use. When you put together a user interface that works well on devices with ways that computers can understand human language the Document Summarization Tool gives us a simple way to deal with a lot of text.

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