

DataSense Suite

Presented by Team SEIMplicity

Project vision and mission

The DataSense Suite is a Interactive virtual environment for students teachers and any person with curiosity. The project makes working fun and easy

01.

Document chat

This feature generates word clouds, provides summaries based on user questions, translates text, and includes a text-to-speech functionality to enhance document comprehension and accessibility.

02.

Data Visualizer

This tool allows users to upload datasheets and visualize the data through various charts and graphs, making data analysis and interpretation straightforward and intuitive.

03.

AirBoard

An innovative feature that enables users to write in the air to explain concepts virtually, eliminating the need for expensive devices like iPads. It simplifies the explanation process, requiring only a finger for effective online teaching.

Tech Stack

Libraries used

STREAMLIT



Python library for creating interactive web applications with minimal code.

PYPDF2



PyPDF2 is a library used to create, manipulate and decode portable documents.

PANDAS



Pandas is a Python library used for working with data sets. It has functions for analyzing, cleaning, exploring, and manipulating data.

WORDCLOUD

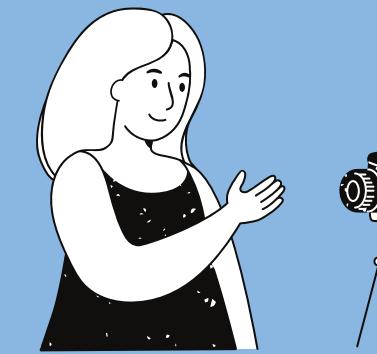


Word clouds or tag clouds are graphical representations of word frequency that give greater prominence to words that appear more frequently in a source text

OPENCV

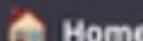


OpenCV (Open Source Computer Vision Library) is an open source computer vision and machine learning software library

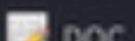


MEDIAPIPE

MediaPipe is an open-source framework for building pipelines to perform computer vision inference over arbitrary sensory data such as video or audio.



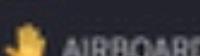
Home



DOC



EXCEL



Visual Learning

DATA SENSE



SUITE



Welcome to DataSense Suite

Empowering educators with seamless document interaction, multilingual chat, and gesture-assisted teaching online.

DataSense Suite empowers educators to Ask, Discover, and Chat Seamlessly with Your Documents! It features a Streamlit app that allows users to effortlessly upload PDFs, ask questions in multiple languages, and receive responses from a conversational chain powered by GPT-based language models. The suite also includes language translation, efficient PDF text extraction, visual word cloud generation for enhanced document exploration, and gesture recognition using OpenCV. This gesture recognition functionality not only adds an interactive element but also aids teachers in teaching online with ease. The app is designed to optimize performance, ensure robust error handling, and deploy on a web server for broad accessibility.

How it Works!

- Begin by choosing a specific task or analysis type from the options available in the sidebar.
- You can ask questions about the content of the PDFs, like having a chat with your documents.
- The app generates a visual word cloud to give you a quick overview of the main terms in your documents.
- If needed, you can choose to translate your questions to different languages.
- If you upload a CSV file, you can ask questions about the data it contains.
- The app visualizes the CSV data with a bar chart, making it easier to understand the numerical values.
- Overall, the app transforms the way you interact with your documents, making it conversational and personalized.

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**Thank you
very much!**