**Real-Time AI Sales Intelligence and Sentiment –**

**Driven Deal Negotiation Assistant**

**Overview**

The Real-Time AI-Powered Sales Intelligence Tool is a cutting-edge solution designed to revolutionize live sales interactions. It provides actionable insights, real-time negotiation strategies, and seamless data management, ensuring improved customer engagement and optimized sales outcomes.

**Key Features**

* **Real-Time Speech Recognition**: Captures live audio input from sales calls.
* **Automated Transcription**: Converts audio into text for further analysis.
* **Sentiment and Intent Analysis**: Leverages advanced NLP models to assess customer emotions and intent.
* **Dynamic Negotiation Terms**: Generates optimized terms based on buyer context.
* **Deal Recommendations**: Matches buyer needs with relevant products.
* **Conversation Summarization**: Summarizes calls and determines deal status.
* **Google Sheets Integration**: Logs buyer interactions for analysis and reporting.

**Tech Stack**

* **Frontend**: Streamlit
* **Backend**: Python
* **APIs**: Google Speech-to-Text, Google Sheets API
* **Libraries**: Hugging Face Transformers, SpeechRecognition, Pandas

**Installation**

**Prerequisites**

* Python 3.10+
* pip

**Steps**

1. **Clone the Repository**:

bash

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git clone https://github.com/your-username/real-time-ai-sales-intelligence.git

cd real-time-ai-sales-intelligence

1. **Install Dependencies**:

bash

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pip install -r requirements.txt

1. **Set Up Environment Variables**: Create a .env file in the project root:

makefile

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GOOGLE\_CREDENTIALS\_PATH=path\_to\_credentials.json

SHEET\_ID=your\_google\_sheet\_id

1. **Run the Application**:

bash

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python main.py

**Workflow**

1. **Speech Recognition**:  
   Captures real-time audio input during sales calls.
2. **Audio Transcription**:  
   Utilizes Google Speech-to-Text API to convert audio into text.
3. **Sentiment and Intent Analysis**:  
   Models:
   * **Sentiment Analysis**: cardiffnlp/twitter-roberta-base-sentiment
   * **Intent Analysis**: facebook/bart-large-mnli  
     Objective: Understand customer sentiment and intent to provide actionable insights.
4. **Deal Recommendations**:  
   Matches buyer inputs with relevant product suggestions from a predefined dataset.
5. **Negotiation Terms**:  
   Generates customized negotiation strategies based on sentiment and intent analysis.
6. **Conversation Summarization**:  
   Summarizes the interaction and provides deal status insights.  
   Model: llama 3.3 70b versatile model
7. **Google Sheets Logging**:  
   Logs interactions, insights, and deal summaries into a shared Google Sheet for tracking.

**File Structure**

* **app.py**: Main application file for Streamlit interface.
* **ai\_models.py**: Handles sentiment and intent analysis.
* **speech\_processing.py**: Converts speech input to text and vice versa.
* **negotiation.py**: Generates negotiation terms.
* **data\_logger.py**: Logs data into Google Sheets.
* **requirements.txt**: Lists all required libraries and dependencies.
* **.env**: Stores environment variables securely.

**Contributing**

**Steps to Contribute:**

1. Fork the repository.
2. Clone your fork:

bash

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git clone https://github.com/your-username/real-time-ai-sales-intelligence.git

1. Create a branch for your feature:

bash

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git checkout -b feature/your-feature-name

1. Commit your changes:

bash

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git commit -m "Add your feature description"

1. Push your branch:

bash

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git push origin feature/your-feature-name

1. Submit a pull request.

**Guidelines**

* Follow PEP 8 coding standards.
* Write clear comments and documentation.
* Add tests for new features.

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**Contact**

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