Project name: SentiScribe: Multimodal Fusion for Sentiment Analysis
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Package/Tool/Library	Visual Studio Code 1.89.1
Machine and OS Version	Windows 10 Windows 11 Mac OS 14.1
Availability	https://code.visualstudio.com/
Usage	Code Editing, Terminal, Run Ipynb notebooks
Data Type of Input	N/A
Accuracy	N/A
Speed	Fast for editing
Out of the Box	√

Package/Tool/Library	Python 3.12.0
Machine and OS Version	Windows 10 Windows 11 Mac OS 14.1
Availability	https://www.python.org/downloads/release/python-3120/
Usage	Code running environment
Data type of the input	N/A
Accuracy	N/A
Speed	N/A
Did it work out of the box? If not, what did you have to do to use it?	√

Package/Tool/Library	Hume 0.5.0
Machine and OS Version	Windows 10, Windows 11, Mac OS 14.1
Availability	Via Python Package Index (PyPI)
Usage	Emotion and sentiment score prediction
Data Type of Input	Video: MP4, Audio: MP3, Text: txt
Accuracy	Accuracy: 48+ emotion scores output by latest machine learning models
Speed	Slow for API Calls, not enough for real time usage for 3 modalities detection simutaneously
Out of the Box	Requires installation; may need additional configuration depending on use case

Package/Tool/Library	OpenAI Python Client 1.24.1
Machine and OS Version	Windows 10, Windows 11, Mac OS 14.1
Availability	Via Python Package Index (PyPI)
Usage	Access to OpenAI's API in Python environment
Data Type of Input	HTTP requests including prompts and system messages
Accuracy	Depends on the prompt quality
Speed	Slow for ChatGPT-4 API
Out of the Box	Requires API key setup and configuration

Package/Tool/Library	Python-dotenv 0.21.0
Machine and OS Version	Windows 10, Windows 11, Mac OS 14.1
Availability	Via Python Package Index (PyPI)
Usage	Management of environment variables in Python
Data Type of Input	.env file containing environment variables
Accuracy	N/A
Speed	N/A
Out of the Box	Need manual configuration for .env files

Package/Tool/Library	Pydub 0.25.1
Machine and OS Version	Windows 10, Windows 11, Mac OS 14.1
Availability	Via Python Package Index (PyPI)
Usage	Audio manipulation and processing
Data Type of Input	Audio files
Accuracy	N/A, just convert file formats
Speed	Moderate speed
Out of the Box	Requires ffmpeg for full functionality

Package/Tool/Library	FFmpeg 1.4
Machine and OS Version	Windows 10, Windows 11, Mac OS 14.1
Availability	Official website https://ffmpeg.org/
Usage	Media file conversion and processing
Data Type of Input	Audio and video files
Accuracy	N/A Just convert file formts
Speed	Slow
Out of the Box	Requires installation with exe installer

Package/Tool/Library	Moviepy 1.0.3
Machine and OS Version	Windows 10, Windows 11, Mac OS 14.1
Availability	Via Python Package Index (PyPI)
Usage	Video editing and processing
Data Type of Input	Video files
Accuracy	N/A Just convert file formts
Speed	Slow
Out of the Box	Requires ffmpeg for full functionality

Package/Tool/Library	WebVTT-py 0.4.6
Machine and OS Version	Windows 10, Windows 11, Mac OS 14.1
Availability	Via Python Package Index (PyPI)
Usage	Handling and parsing WebVTT files
Data Type of Input	.vtt files
Accuracy	Requires VTT files in complete format
Speed	Fast, nearly real time
Out of the Box	√

Package/Tool/Library	OpenCV-python 4.9.0.80
Machine and OS Version	Windows 10, Windows 11, Mac OS 14.1
Availability	Via Python Package Index (PyPI)
Usage	Image and video analysis and manipulation
Data Type of Input	Images and video streams
Accuracy	High for image and video processing tasks
Speed	Moderate slow for video frame capturing
Out of the Box	Need configuration

Package/Tool/Library	pandas 2.2.2
Machine and OS Version	Windows 10, Windows 11, Mac OS 14.1
Availability	Via Python Package Index (PyPI)
Usage	Data manipulation and analysis
Data Type of Input	CSV, Excel
Accuracy	N/A
Speed	Fast for our use case, nearly real time
Out of the Box	√

Package/Tool/Library	numpy 1.26.4
Machine and OS Version	Windows 10, Windows 11, Mac OS 14.1
Availability	Via Python Package Index (PyPI)
Usage	Numerical computing
Data Type of Input	Arrays and matrices
Accuracy	Accurate
Speed	Fast, nearly real time
Out of the Box	√

Package/Tool/Library	matplotlib 3.8.4
Machine and OS Version	Windows 10, Windows 11, Mac OS 14.1
Availability	Via Python Package Index (PyPI)
Usage	Plotting and visualization of data
Data Type of Input	Data from arrays, lists, or pandas DataFrames
Accuracy	N/A
Speed	Medium speed, can be slow for large dataset or high resolution drawing
Out of the Box	Advanced plotting style needs configuration

Package/Tool/Library	scikit-learn 1.4.2
Machine and OS Version	Windows 10, Windows 11, Mac OS 14.1
Availability	Via Python Package Index (PyPI)
Usage	Machine learning algorithms and tools
Data Type of Input	Numeric or categorical data, often in arrays or matrices
Accuracy	dependent on proper model tuning
Speed	Slow for model training
Out of the Box	√

Package/Tool/Library	Axios 1.6.8
Machine and OS Version	Windows 10, Windows 11, Mac OS 14.1
Availability	Via CDN
Usage	Making HTTP requests from browser and Node.js
Data Type of Input	HTTP request configurations (URL, headers, params, etc.)
Accuracy	N/A
Speed	Slow, dependent on network conditions and server response
Out of the Box	Need HTTP request configurations

Package/Tool/Library	Bootstrap 5.3.3
Machine and OS Version	Windows 10, Windows 11, Mac OS 14.1
Availability	Via CDN
Usage	Front-end framework for building responsive, mobile-first sites
Data Type of Input	HTML, CSS, and JavaScript for UI components
Accuracy	N/A
Speed	Fast for display contens
Out of the Box	Need configuraion by HTML pages