

System Documentation

1. Overview

"A comprehensive web-based platform designed for multi-modal sentiment analysis, offering real-time evaluation, batch processing, model performance validation, and data-rich comparative reports."

2. Navigation Architecture

About

Methodology &
Purpose

Dashboard

Core Analysis Hub

History

Analysis Logging

3. Analysis Modes

◆ Single Text Analysis

Designed for quick, granular feedback on individual strings.

1. Input sentence or paragraph into the primary text field.
2. Execute via the `Analyse Sentiment` button.
3. Receive immediate visual and quantitative sentiment feedback.

◆ **Batch File Upload**

Efficiency-focused processing for large datasets.

1. Upload structured files containing multiple entries.
2. The system processes initial entries (20-input limit for demo versions).
3. Select **Analyse File** to generate a consolidated results table.

4. Model Evaluation & Benchmarking

Advanced diagnostic features using Ground-Truth validation.

- **Data Labeling:** Input text and assign verified "True Sentiment" labels.
- **Dataset Building:** Click `Add to Evaluation Data` to construct a local validation set.
- **Performance Audit:** Use `Calculate Performance Metrics` to generate:

`Confusion Matrix` `Overall Accuracy` `Class Precision` `Recall` `F1-Scores`

5. Comparative Analysis

Side-by-side linguistic evaluation for contrasting multiple text sources.

1. Provide up to four distinct text inputs for comparison.
2. Select `Compare Texts` to generate a multi-dimensional report:
 - Relative sentiment intensity scores.
 - Dominant emotion detection.
 - Visual Data: Radar charts, distribution plots, and intensity heatmaps.

6. Report Generation & Export

Manage and export insights for external use.

- **Session Reset:** Use `Clear Analysis` to purge current workspace data.
- **Multi-Format Export:** High-fidelity reports available via `Download Report` in:

`PDF (Visual)` `JSON (Structured)` `CSV (Tabular)`

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