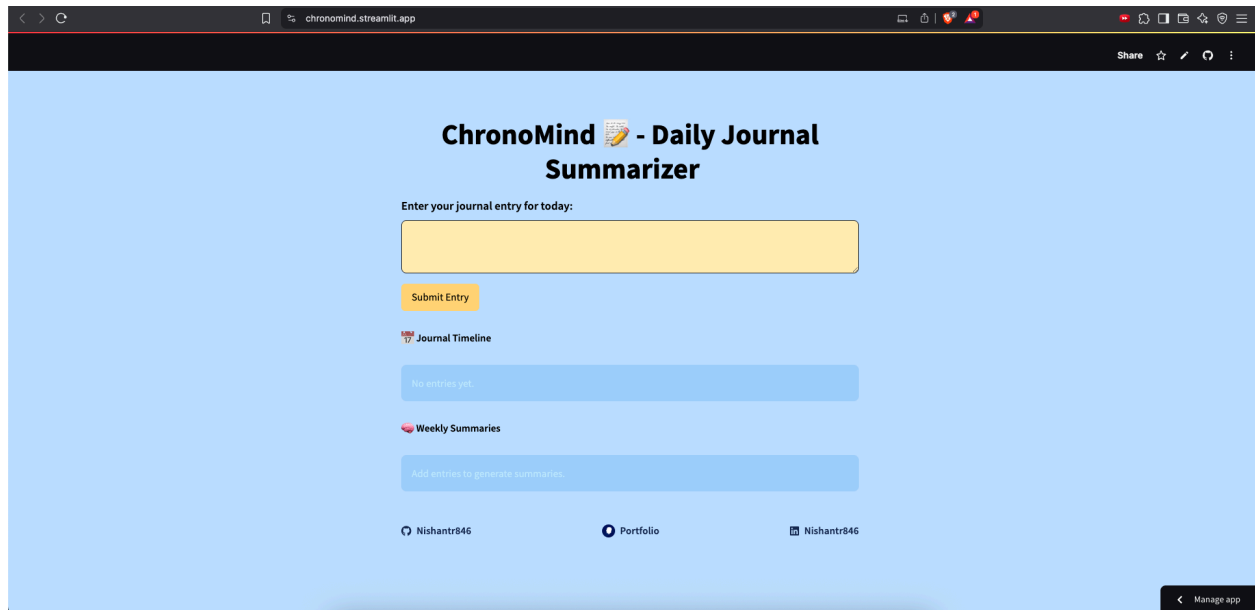



ChronoMind - Daily Journal Summarizer



This Streamlit application — **ChronoMind  - Daily Journal Summarizer** — is a personal productivity tool designed to help users log daily thoughts and automatically generate weekly summaries using state-of-the-art Natural Language Processing (NLP). Below is a detailed technical breakdown of its functionality, features, and implementation.

✓ Overview of How the App Works

1. User Input Logging:

- The user types a daily journal entry.
- On submission, the entry is time stamped with the current date and stored in `st.session_state`.

2. Display Journal Timeline:

- All previous entries are shown in reverse chronological order with the option to delete individual entries.

3. Generate Weekly Summaries:

- Entries are grouped by ISO week number.
- For each group, a combined text is sent to a **transformer-based summarization model**.
- Summarized text is displayed per week.
- Users can download all weekly summaries as a **.txt** file.

4. Download Summary:

- A button lets users export the generated weekly summaries for offline reference.

5. Front End Styling:

- Custom CSS enhances the visual experience.
- Integrates icons from Google Fonts and Font Awesome.

Technologies and Frameworks Used


Component	Description
Streamlit	Core web framework for creating the interactive UI.
Transformers (Hugging Face)	Provides pre-trained NLP models (e.g., facebook/bart-base or facebook/bart-large-cnn) for summarization.
Torch	Backend used by transformers for deep learning inference.
UUID	Generates a unique session ID.
Datetime	Handles date formatting and grouping by week.
io.StringIO	Creates in-memory file object for downloadable summaries.

Key Features

1. Daily Journal Input

- Input field for journaling thoughts.
- Entries are stored locally in the session (non-persistent across reloads unless Streamlit caching is expanded).

2. Timeline View

- Entries displayed with date and text.
-  button to remove any entry interactively.

3. Weekly Summary Generation

- Uses NLP summarization to condense all entries for a specific week.
- Ensures generated summaries are **abstractive** and contextually relevant by fine-tuning model parameters.

4. Download as **.txt**

- All weekly summaries are downloadable in plain text format.