

Sailor Shift Journey User Guide

ISSS608-G1: VISUAL ANALYTICS AND APPLICATIONS

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Contents

Introduction	2
Overview Tab	2
Top Influencers Tab	5
Genre Influence Network Tab	7
Genre Trend Analysis Tab	9
Raw Song Data Tab.....	12
Collaborators Tab.....	13
Influence Graph Tab	15
Top Artist Rankings Tab	17
Popularity Index Change Tab	19
Predicted Future Stars Tab	21

Introduction

The Shiny App Sailor Shift's Journey provides visual insights into the musical influence network surrounding Sailor Shift. This user guide will walk you through each key feature using visual examples.

Overview Tab

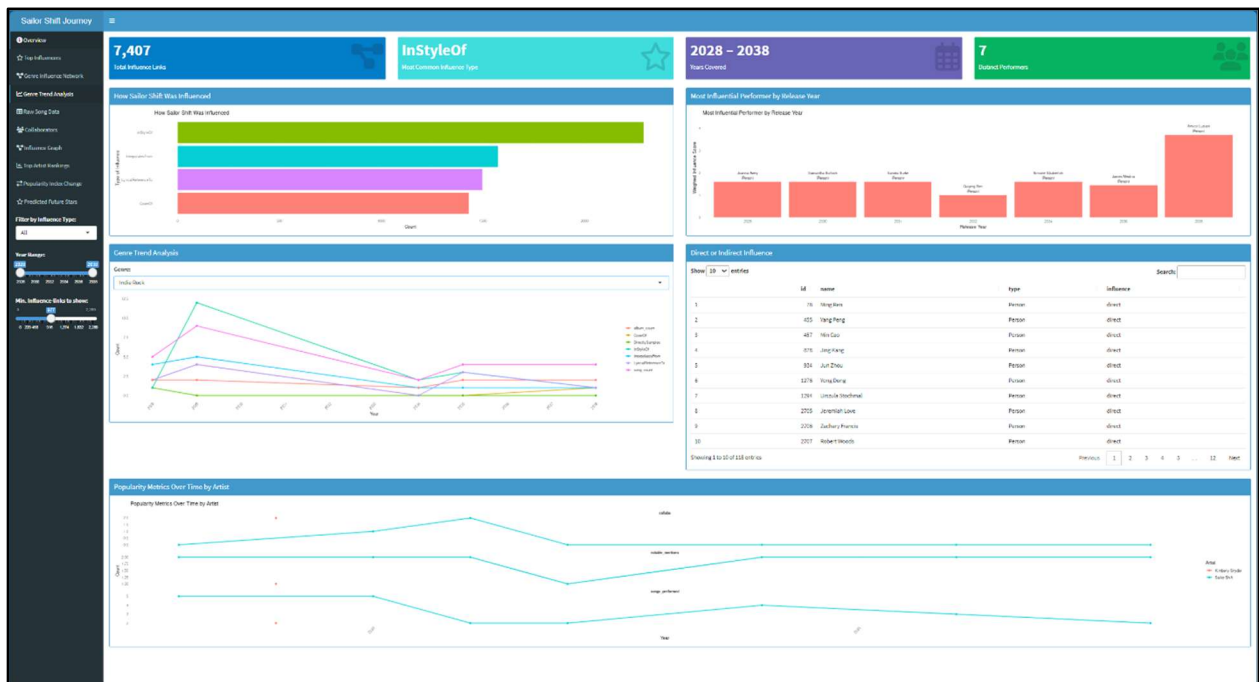
Overview is a summary dashboard that provides a snapshot of key insights into the musical influence network around Sailor Shift. It contains multiple visualizations and metrics to summarize and interpret data effectively.

Dashboard Interface Structure

The Overview Dashboard is divided into clear sections:

- **Top Value Boxes:** Summarizing key numeric metrics.
- **"How Sailor Shift Was Influenced" Bar Chart:** Influence types.
- **"Most Influential Performer by Release Year" Chart:** Yearly key influencers.
- **"Genre Trend Analysis" Line Chart:** Trends across genres over time.
- **"Direct or Indirect Influence" Table:** Tabular influence data.

- **"Popularity Metrics Over Time by Artist" Line Chart:** Artist popularity trends.



Step 1: Understanding the Top Value Boxes

At the top, you'll find key summary metrics clearly displayed:

- **Total Influence Links:** Shows the total number of connections in the influence network.
- **Most Common Influence Type:** Identifies the primary way influences occur (e.g., "InStyleOf").
- **Years Covered:** Indicates the span of years your analysis covers.
- **Distinct Performers:** Counts unique performers included in the influence network

Step 2: How Sailor Shift Was Influenced (Bar Chart)

This visualization clearly summarizes how Sailor Shift received influences:

- Each bar represents an Influence Type.
- The length of each bar indicates the number of occurrences of that type of influence.
- You can filter influence type and minimum influence links via sidebar selectors.

- Use this to quickly identify the most common ways influences impacted Sailor Shift.

Step 3: Most Influential Performer by Release Year (Column Chart)

This visual clearly shows the top influencer for each year:

- X-axis (bottom) shows the release years.
- Y-axis (vertical) represents the weighted influence scores.
- Each column is labelled with the top influencer's name.
- You can filter specific date range to find out the influenced years via sidebar selectors.

Step 4: Genre Trend Analysis (Line Chart)

Explore the evolution of specific musical genres over the analysis timeframe:

- The Y-axis shows the count or occurrence.
- The X-axis represents years.
- Each colored line indicates a different genre (selectable from sidebar).
- You can filter date range and genres via sidebar selectors.
- Use this to analyze how musical genres evolve or compare their trends over time.

Step 5: Direct or Indirect Influence (Interactive Table)

A searchable table providing detailed data on direct and indirect influences:

- Columns:
 - id: Numeric identifier.
 - name: Influencer's name.
 - type: Entity type (Person, Group, etc.).
 - influence: Type of influence (direct/indirect).

Interactivity:

- Sort columns by clicking the column headers.
- Use the search box to quickly find specific influencers.

Step 6: Popularity Metrics Over Time by Artist (Line Chart)

Compare artists' popularity metrics across the timeline:

- X-axis represents years.
- Y-axis indicates popularity scores.
- Each line represents a different artist, color-coded for clarity.
- Metrics such as collabs, notable mentions, and songs performed are visualized.
- You can filter the date range via sidebar selectors.
- You can use this to visually compare how artists' popularity and collaboration trends change over the analyzed timeframe.

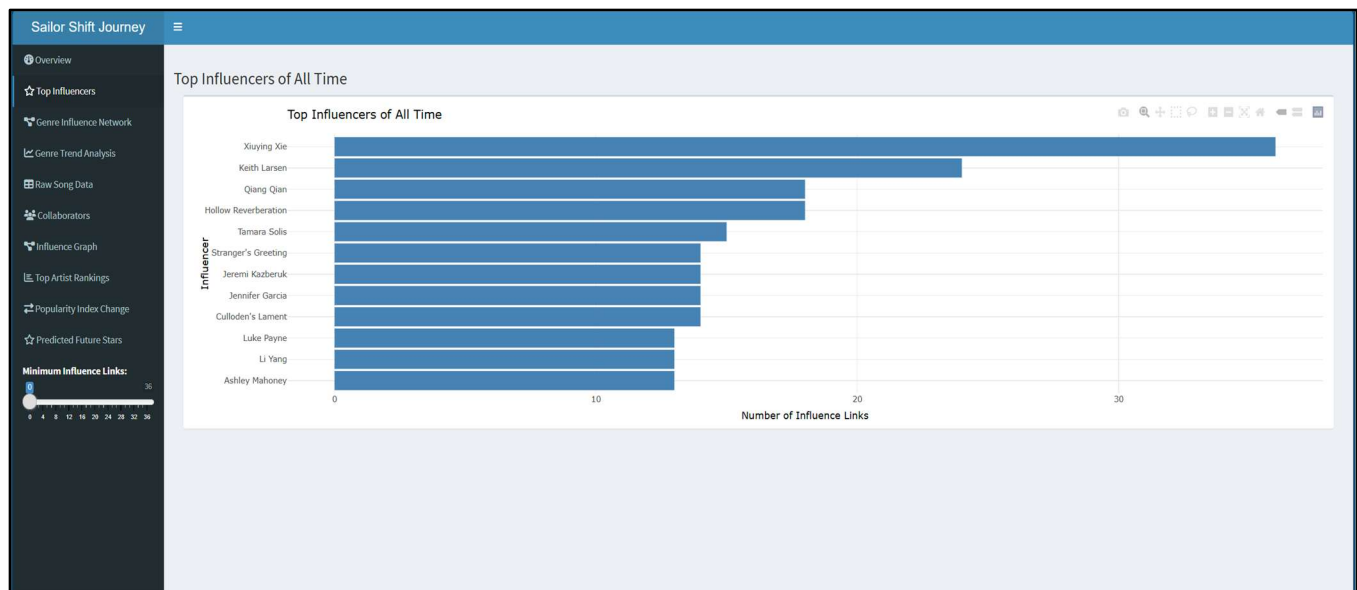
Top Influencers Tab

The Top Influencers page provides clear insights about which performers have most significantly influenced Sailor Shift over time. You can easily explore top-ranked influencers based on the total number of influence connections they have.

Interface Components

This visualization has two main components:

- Horizontal Bar Chart
- "Minimum Influence Links" Slider (interactive control)



Step 1: Interpreting the Top Influencers Bar Chart

- Horizontal Axis (Number of Influence Links): Represents the number of connections (influences) each performer has established.
- Vertical Axis (Influencer): Lists the names of the top influencers, ranked from highest at the top to lowest at the bottom.
- The longer the bar, the more influential the performer is.
- Quickly identify top influencers based on their bar lengths.
- Use this visualization to identify key influential artists and their relative influence strength clearly and quickly.

Step 2: Using the Interactive Slider ("Minimum Influence Links")

On the left sidebar, you'll see the interactive slider labeled "Minimum Influence Links":

- Purpose: Filters influencers by setting a minimum threshold for influence links.
- How to use it:
 1. Drag the slider handle to your desired minimum number of influence links.
 2. The chart automatically updates to display only influencers meeting or exceeding your chosen threshold.
 3. Use this slider to dynamically explore and focus on performers of a specific influence strength range.

Step 3: Additional Interactive Features

At the top-right corner of the chart, interactive icons provide additional functions:

- Zoom & Pan: Click to zoom in/out or pan across the chart area.
- Download Icon: Allows exporting the visualization as an image file (PNG/JPG).
- Reset Icon: Click to reset the visualization to its original state.

Recommended Use:

- First, quickly scan the default chart to gain an overview of major influencers.
- Then, adjust the "Minimum Influence Links" slider to investigate deeper, focusing on the most impactful influencers.

Genre Influence Network Tab

The Genre Influence Network visualization allows you to explore interactions and relationships between various musical genres. It highlights how one central genre connects to and influences or is influenced by other genres.

Interface Components

This visualization consists of two main parts:

- Interactive Genre Network Graph
- "Select Central Genre" Dropdown Selector (interactive control)

On the left sidebar, there's an interactive dropdown labeled "Select Central Genre":

- Purpose: Lets you change the focal (central) genre to explore different genre relationships dynamically.
- How to use it:
 1. Click the dropdown menu.
 2. Select the genre you are interested in.
 3. The network graph dynamically updates, displaying the relationships of the newly chosen central genre.
 4. Use this dropdown to explore how different genres are interconnected in the influence network.

Step 3: Interpreting Legend & Visual Attributes

On the right, there's a legend explaining visual attributes clearly:

- Weight: Line thickness representing the strength of relationships.
- Type: Color coding for easy identification of node types.
- Count: Node size indicating significance or frequency.

Recommended Usage:

- Start by selecting a genre from the dropdown menu to set your central focus.
- Interact with nodes and edges to deeply explore genre relationships and influences.
- Use zooming and dragging for optimal clarity in complex networks.

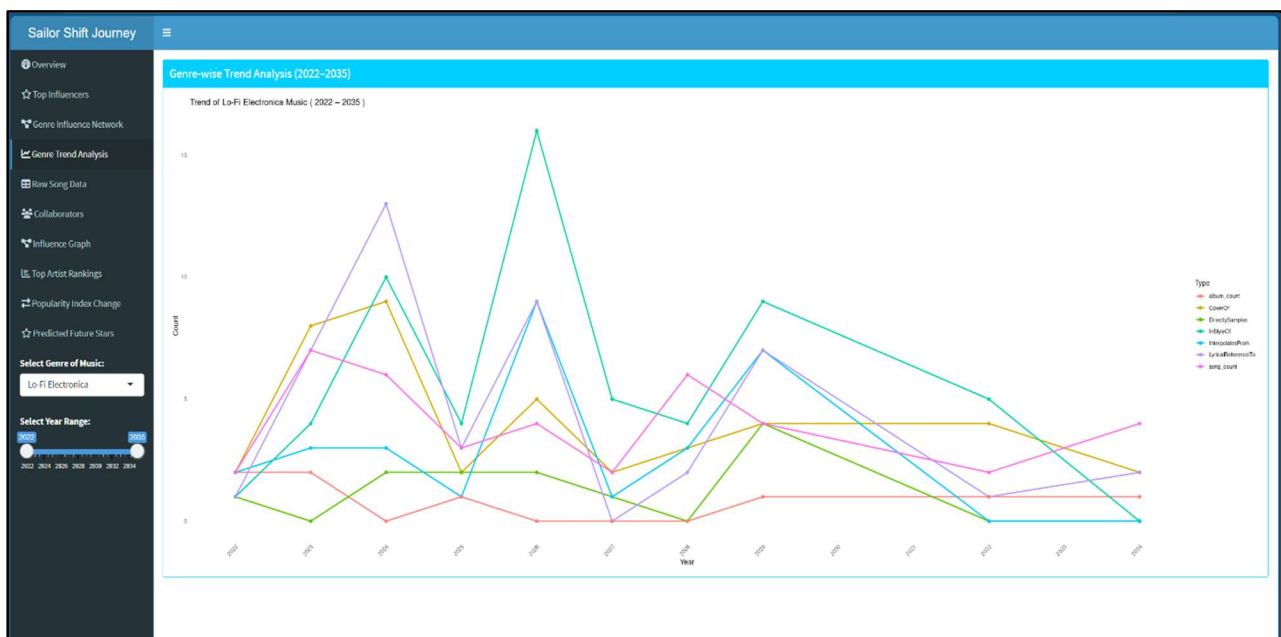
Genre Trend Analysis Tab

The Genre Trend Analysis visualization provides an intuitive line-chart representation of the evolution of influence-related trends within a selected musical genre over specified years. It allows users to see patterns, peaks, and changes over time for different types of influence.

Interface Components

This visualization consists of three primary components:

- Interactive Line Chart
- "Select Genre of Music" Dropdown
- "Select Year Range" Slider



Step 1: Interpreting the Genre Trend Line Chart

- Horizontal Axis (Years):
Represents the selected timeline from the year slider.
- Vertical Axis (Count):
Indicates the number of occurrences or influence frequency.
- Multiple Colored Lines:
Each colored line represents a distinct type of influence or count metric (e.g., "CoverOf," "InStyleOf," "album_count," "song_count," etc.).

How to read the chart clearly:

- Line peaks: Indicate higher occurrences of a particular type during a specific year.
- Trend lines: Clearly show how influence types or counts have changed over time.
- Hovering over points on the lines provides precise counts and additional detail.

- Use this visualization to spot trends, fluctuations, or notable changes in genre influences over years.

Step 2: Selecting a Genre of Music (Dropdown)

On the left sidebar, use the interactive dropdown labeled "Select Genre of Music":

- Purpose:
Allows changing the visualized genre dynamically.
- How to use it:
 1. Click the dropdown menu.
 2. Choose the genre of interest.
 3. The chart updates automatically to reflect data for the selected genre.
 4. Use this feature to explore detailed yearly trends for various musical genres individually.

Step 3: Adjusting the Year Range (Slider)

The slider labeled "Select Year Range" on the left sidebar allows dynamic year selection:

- Purpose: Filters and focuses analysis on specific timeframes.
- How to use it:
 1. Drag slider handles to set start and end years.
 2. Chart updates to only display trends within your selected timeframe.
 3. Use this to perform focused analyses on shorter time intervals or broader trend exploration over longer periods.

Step 4: Using the Legend

The chart's legend clearly identifies each line type by color. Refer to this legend to:

- Quickly understand what each line represents.
- Easily interpret visual patterns, particularly when multiple lines overlap.

Recommended Usage:

- Choose a genre first, then set the desired year range.
- Observe clear trends, patterns, and year-wise comparisons visually.
- Hover over points for precise details and interpret visual insights.

Raw Song Data Tab

The Raw Song Data section offers a detailed, tabular view of Sailor Shift's song dataset, enabling users to directly interact with raw information such as song names, IDs, and release details.

Interface Components

The section contains the following key components:

- Interactive Data Table
- Search Functionality
- Pagination Control
- Entries Per Page Selector

Sailor Shift Journey

Overview

Top Influencers

Genre Influence Network

Genre Trend Analysis

Raw Song Data

Collaborators

Influence Graph

Top Artist Rankings

Popularity Index Change

Predicted Future Stars

Sailor Shift's Raw Song Data

Show10entries

Search:

	id	name	release_date	release_year
1	17272	Tidal Pop Waves	2028	2028
2	17279	High Tide Heartbeat	2028	2028
3	17280	Electric Eel Love	2028	2028
4	17281	Sun-Drenched Daydream	2028	2028
5	17282	Chord of the Deep	2028	2028
6	17273	Salty Dreams	2030	2030
7	17283	Heart of the Habitat	2030	2030
8	17284	Reef Rhythm	2030	2030
9	17285	Driftwood Lullaby	2030	2030
10	17410	Seashell Serenade	2030	2030

Showing 1 to 10 of 26 entries

Previous

1

2

3

Next

Step 1: Interpreting the Data Table

The table clearly displays detailed information about Sailor Shift's songs:

- id: Unique numerical identifier for each song.
- name: Song title.
- release_date: Year when the song was released.
- release_year: Another column indicating release year, similar to release_date (may be for additional clarity).

How to interact clearly with this table:

- **Sort Data:** Click column headers (e.g., id, name, release_date) to sort entries in ascending or descending order.
- **View Additional Entries:** Default view shows 10 entries. Select a different number from the dropdown above the table (e.g., 25, 50, or 100 entries) to change the displayed amount.
- **Navigate Pages:** Use "Previous" and "Next" buttons at the bottom-right of the table to browse through multiple pages of data entries.

Step 2: Using the Search Box

At the top-right corner, you'll see the Search box:

- **Purpose:** Quickly find specific songs or information.
- **How to use it:**
 1. Type a keyword (e.g., song title or release year) into the box.
 2. Table updates immediately, showing only matching results.
 3. Use this feature to rapidly access specific song details.

Recommended Usage:

- Utilize sorting for quickly organizing data (e.g., chronological order of release years).
- Leverage the search feature to immediately locate songs of interest.
- Use pagination controls for navigating larger datasets systematically.

Collaborators Tab

The Collaborators section displays two detailed, interactive tables providing insights into Sailor Shift's collaborators and their direct or indirect influences.

Interface Components

The "Collaborators" page consists of two main interactive tables:

- Collaborations Data Table
- Direct or Indirect Influence Table

Each table provides unique information and interactive features to explore.

The screenshot shows a web application interface titled "Sailor Shift Journey". On the left is a dark sidebar with navigation links: Overview, Top Influencers, Genre Influence Network, Genre Trend Analysis, Raw Song Data, Collaborators (highlighted), Influence Graph, Top Artist Rankings, Popularity Index Change, and Predicted Future Stars. The main content area has a light blue header and contains two tables.

Collaborations Data Table

Table controls: Show 10 entries, Search: [input field]

	collaborator_name	Number of Songs	Year(s)	Song ID(s)
1	Beatrice Albright	1	2031	17350
2	Daniel O'Connell	1	2031	17356
3	Kai Reynolds	1	2030	17410

Showing 1 to 3 of 3 entries. Previous 1 Next

Direct or Indirect Influence Table

Table controls: Show 10 entries, Search: [input field]

	id	name	type	influence
1	76	Ming Ren	Person	direct
2	455	Yang Peng	Person	direct
3	457	Min Cao	Person	direct
4	878	Jing Kang	Person	direct
5	934	Jun Zhou	Person	direct
6	1276	Yong Dong	Person	direct
7	1294	Ursula Stochmal	Person	direct
8	2705	Jeremiah Love	Person	direct
9	2706	Zachary Francis	Person	direct
10	2707	Robert Woods	Person	direct

Showing 1 to 10 of 118 entries. Previous 1 2 3 4 5 ... 12 Next

Step 1: Collaborations Data Table

This table summarizes artists who have collaborated with Sailor Shift, providing clear details on each collaboration:

Table Columns:

- **collaborator_name**: Name of the artist who collaborated.
- **Number of Songs**: Total songs collaboratively created.
- **Year(s)**: Year(s) of collaboration.
- **Song ID(s)**: Unique identifier(s) for the collaborated songs.

Interactive features:

- **Sorting**: Click column headers to sort collaborators by name, number of songs, years, or song IDs.
- **Pagination & Entries per Page**: Change displayed number of entries using the dropdown above the table. Navigate pages using the "Previous" and "Next" buttons.
- **Search Feature**: Type collaborator names, years, or song IDs to quickly filter data.
- Use this table for concise summaries and easy identification of Sailor Shift's collaborators.

Step 2: Direct or Indirect Influence Table

This table displays artists who have directly or indirectly influenced or were influenced by Sailor Shift:

Table Columns:

- id: Unique numerical identifier.
- name: Name of the influencer or influenced artist.
- type: Category of the entry (e.g., Person).
- influence: Type of relationship (direct or indirect).

Interactive features:

- Sorting: Click any column header to sort data according to preference.
- Pagination & Entries per Page: Adjust displayed entries with the dropdown selector. Navigate between pages using pagination buttons.
- Search Feature: Quickly find specific influencers or types by entering keywords into the search box.
- Use this table to explore detailed relationships between artists and easily identify direct versus indirect influences.

Recommended Usage:

- Begin by reviewing the Collaborations Data Table to see who Sailor Shift has directly worked with.
- Use the Direct or Indirect Influence Table for deeper exploration of Sailor Shift's broader influence relationships.

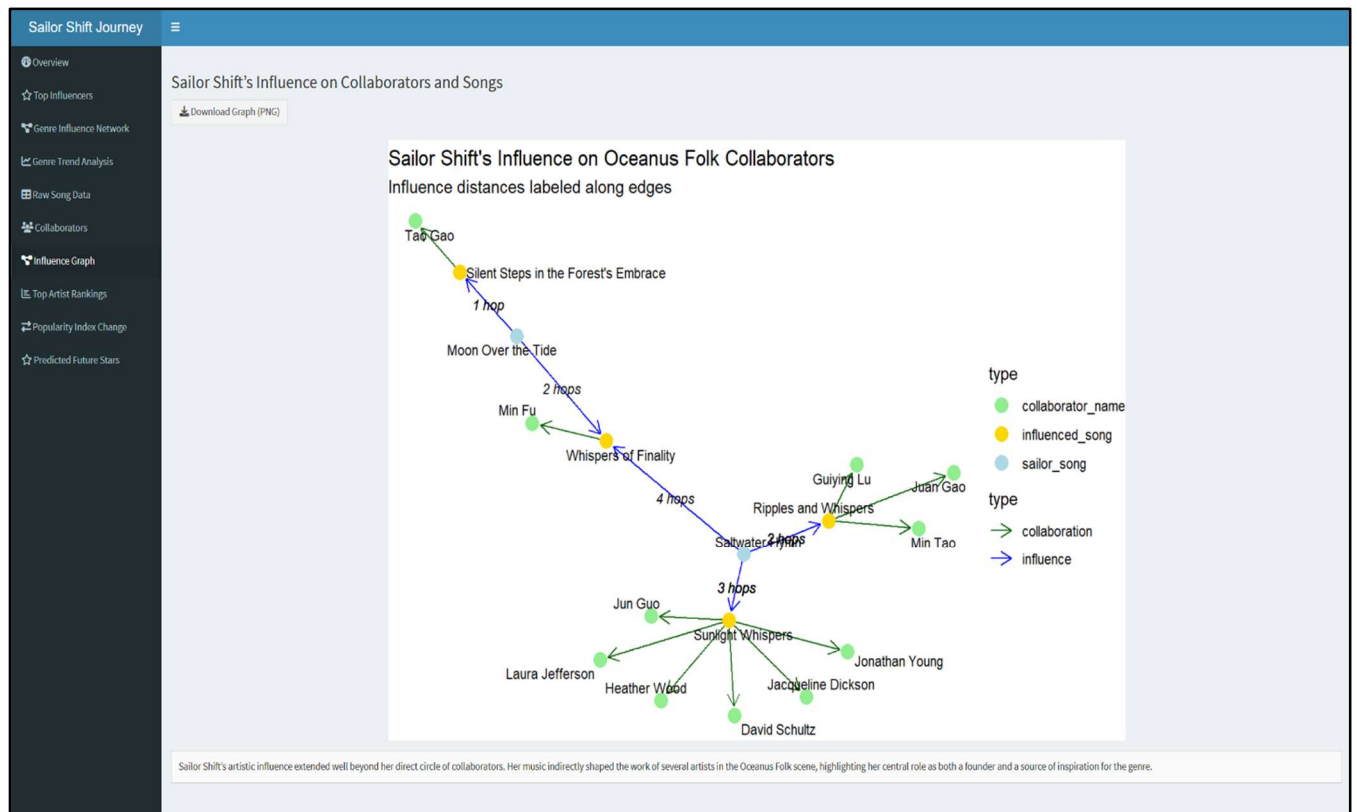
Influence Graph Tab

The Influence Graph visually illustrates the influence paths and relationships Sailor Shift has with collaborators and their songs, specifically within the Oceanus Folk community. This interactive visualization clearly depicts both direct and indirect influences, enabling intuitive exploration of artistic relationships.

Interface Components

The visualization has two primary components:

- Interactive Graph Visualization
- Download Graph Button



Step 1: Understanding the Influence Graph

The graph contains clear visual elements:

- Nodes (circles):
 - Green: Collaborator Names
 - Yellow: Influenced Songs
 - Blue: Sailor Shift's Songs
- Edges (arrows):
 - Green arrows: represent Collaboration.
 - Blue arrows: represent Influence.
 - Edge labels (e.g., "1 hop," "2 hops"): represent the number of steps between Sailor Shift and indirectly influenced artists or songs.

How to read clearly:

- Direction of arrows clearly indicates the flow of influence or collaboration.
- "Hop" numbers show the degree of separation from Sailor Shift's original songs or collaborations.

- Nodes placed closer visually typically have stronger or more direct relationships.
- Use this visualization to intuitively understand complex influence paths and collaborations involving Sailor Shift.

Step 2: Downloading the Graph

- Use the button "Download Graph (PNG)" to save the current view of the graph as an image file for external use or reference.

Recommended Usage:

- Begin by exploring the graph visually to identify direct and indirect influence paths.
- Download image of insightful visualizations for reporting or further analysis.

Top Artist Rankings Tab

The Top Artist Rankings section displays the most influential and popular artists based on a final composite score, which combines various metrics like number of songs, collaborations, and influence links. It helps users quickly identify standout figures in the dataset.

Interface Components

- Horizontal Bar Chart showing top-ranked artists.
- Interactive Filter Controls on the right:
 - Dropdown: Number of top artists to display
 - Slider: Minimum composite score threshold



Step 1: Reading the Bar Chart

The chart displays:

- Y-Axis (Artist): Names of top-ranked artists.
- X-Axis (Final Composite Score): Numeric score combining various popularity and influence metrics.

How to interpret:

- Artists are ranked from highest to lowest score.
- The longer the bar, the higher the artist's overall impact and popularity.
- Numbers at the end of each bar show the exact score.
- Use this visualization to identify which artists lead in both popularity and influence.

Step 2: Filtering with the Dropdown

Located under the "Filters" panel on the right:

- Label: Show Top:
- Function: Choose how many top artists to display in the chart.

How to use:

1. Click the dropdown.
2. Select how many top artists (5, 10, 15) you want to display.
3. Chart updates instantly to show the selected number of artists.

4. Use this filter to focus on a smaller or larger group of high-ranking artists.

Step 3: Setting a Minimum Composite Score (Slider)

Below the dropdown is the Minimum Composite Score slider which filters out artists with scores below your selected threshold.

How to use:

1. Drag the slider handle to your desired minimum score.
2. Only artists whose scores meet or exceed that value will be displayed.
3. Use this to narrow down the list to only the most impactful artists.

Recommended Usage:

- Start with the full list of top 10 artists to understand overall rankings.
- Use the slider to explore elite artists with particularly high scores.
- Adjust the number of artists displayed to zoom in on top-tier performers or view broader trends.

Popularity Index Change Tab

The Popularity Index Change section visualizes how selected artists' popularity evolved between 2025 and 2039. It helps track and compare long-term visibility, influence, and career momentum.

Interface Components

- Interactive Line Chart displaying artist popularity changes.
- Summary Description Panel explaining key observations.



Step 1: Reading the Popularity Change Chart

The line chart displays:

- **X-Axis (Years):** Starting (2025) and ending (2039) years of the comparison period.
- **Y-Axis (Popularity Index):** Numerical index indicating artist popularity based on a weighted formula (influence, collaborations, etc.).
- **Lines & Labels:** Each artist is represented by a unique color. Points at the start and end of each line are labeled with artist names and scores.

How to interpret:

- Upward slope = growth in popularity over time.
- Flat or downward slope = stagnant or declining popularity.
- The steepness indicates the rate of growth or change.
- Use this chart to visually compare how different artists progressed over the years in terms of overall popularity.

Step 2: Observing Key Insights

- Observed performance trends of each artist.
- Key drivers of their popularity rise or decline (collaborations, influence, recognition).
- Interpretative conclusions for data storytelling.

- Use this text panel to support interpretation and generate takeaway points for analysis or presentation.

Recommended Usage:

- Focus on growth trajectories to identify rising stars and long-term performers.
- Use in combination with Top Artist Rankings to compare current standing versus long-term trends.

Predicted Future Stars Tab

The Predicted Future Stars section highlights the top emerging artists based on their composite influence and popularity scores. This table helps users identify rising stars in the Oceanus Folk community and understand the rationale behind their ranking.

Interface Components

- Ranking Table of Future Stars
- Explanatory Caption Below the Table
- Each row in the table represents an emerging artist with a calculated score.

Sailor Shift Journey

Overview

Top Influencers

Genre Influence Network

Genre Trend Analysis

Raw Song Data

Collaborators

Influence Graph

Top Artist Rankings

Popularity Index Change

Predicted Future Stars

Successful Stars in the Future

	ID	Artist	Score
1	1	Guiling Bai	12.52106585047426
2	2	Qiang Tang	12.08277442918568
3	3	Regina Hesse	11.13312810361064
4	4	Gang Zhao	10.85514542824757
5	5	Tao Yang	10.75055681536833
6	6	Jing Cui	10.66312447436491
7	7	Lei Yuan	10.65339306691468
8	8	Fang Zou	10.46851723031563
9	9	Yan Qin	10.32875528794047
10	10	Lei Liao	10.15580148115012

Showing 1 to 10 of 10 entries

Previous

1

Next

Artists ranked in this table are emerging figures in the Oceanus Folk community. We created a composite popularity and influence score (final_score) for all artists in the dataset. This score was calculated using four normalized metrics: Number of songs performed, Number of collaborations (shared credits), Number of notable mentions (awards or top charts) Influence spread (how many songs their music influenced) All values were log normalized and summed to produce a balanced final score. Their high final scores reflect strong past engagement and influence potential, positioning them as likely future leaders in the genre.

Step 1: Understanding the Ranking Table

The table consists of the following columns:

- ID: Rank number (1 = highest predicted future star).
- Artist: Name of the artist identified as an emerging figure.

- **Score:** Composite score calculated based on normalized popularity and influence metrics.

How to read it:

- Artists at the top (rank 1–3) are the strongest future candidates for stardom.
- The Score reflects combined indicators of:
 - Number of songs performed
 - Number of collaborations (shared credits)
 - Number of notable mentions (e.g., awards, top charts)
 - Influence spread (how many songs their music influenced)
 - Use this table to identify the next wave of influential artists in the genre.

Step 2: Interacting with the Table

- **Sorting:** Click on column headers (ID, Artist, or Score) to sort data.
- **Pagination:** Use navigation controls below the table to move through pages if more than 10 entries exist.

Recommended Usage:

- Use the table to discover promising new artists.
- Combine this insight with previous views (Influence Graph, Trend Analysis) to trace their early influences or collaborators.
- Ideal for identifying talent scouts, festival curators, or music industry analysts.