Taylor Swift Lyrics Topic, Sentiment, and Emotional analysis Hook

Context

Sentiment analysis is at the heart of understanding how people express emotions and opinions in written text. Whether it's deciphering the mood of social media posts, analyzing customer feedback, or evaluating literary works, this technique reveals patterns and emotions hidden in words. For anyone new to data science and textual analysis, sentiment analysis provides an accessible yet powerful introduction to the field. With minimal prerequisites, it bridges the gap between technical skills and the creative exploration of human expression.

Motivation

This case study—an analysis of Taylor Swift's lyrics—offers a unique and enjoyable starting point for sentiment and emotional analysis, as well as topic modeling. By diving into this fun and interesting project, you'll experience how to extract meaningful insights from text data, making the learning process both practical and engaging. As you work through this case study, you will:

1. Master Foundational Skills in Textual Analysis:
    - Perform topic modeling to identify key themes in your dataset.
    - Conduct sentiment and emotional analysis, uncovering the emotional tones that pervade Taylor Swift's discography.
2. Sharpen Research and Critical Thinking Skills:
    - Learn to critically evaluate the results of topic modeling and connect them to the most frequent emotions in your data.
    - Gain insight into how data-driven storytelling can illuminate the connections between themes and sentiments.
3. Explore Cutting-Edge AI Tools:
    - Use Python and an Application Programming Interface (API) to prompt generative AI, delving deeper into the nuances of emotional scoring with transformers.
4. Develop Quantitative and Statistical Expertise:
    - Apply quantitative skills such as significance testing to measure emotional trends over time, building confidence in your ability to draw meaningful conclusions from data.
    - Get an early introduction to time-series analysis, a vital skill for tracking changes and patterns across chronological datasets.

Github: https://github.com/cann-emma/TSwiftLyricAnalysis