**Chelsea Kumala**

**Project Name:** Enhancing Customer Retention through Data Analysis

https://www.indeed.com/jobs?q=SQL+livenation&l=&from=searchOnDesktopSerp&vjk=87c8aa29d7f65647

**Link to GitHub Repository:** https://github.com/yourusername/customer-retention-analysis

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## Job Description

The project supports the goals of the *Data Visualization Intern - LiveAnalytics* role at Live Nation, which involves developing a revenue insights dashboard to assist in quarterly and annual planning. The dashboard will provide actionable, data-driven strategies by analyzing historical trends, sales forecasts, and market research.

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## Why This Job Was Selected

This job combines analytics and entertainment—perfectly aligned with my interest in using data to empower artists, venues, and fans. It offers hands-on experience with real-world data and advanced visualization tools used in industry, such as Amazon QuickSight and SQL.

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## Relevance to Career Goals

My long-term goal is to work in data strategy within the entertainment industry. This role provides foundational experience in SQL, client-facing data storytelling, and dashboard development—key skills I aim to refine through this project.

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**Why This Job Interests Me**

With a background in dance and talent management, I'm passionate about connecting audiences with live experiences. This internship enables me to blend creativity and analytics to tell stories that drive smarter event decisions.

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**Problem**

Venues and event organizers often struggle to forecast demand accurately due to a lack of integration between ticket sales data and real-time audience sentiment.

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**Relevance of the Problem to the Job**

This role at LiveAnalytics requires analyzing large datasets, building dashboards, and delivering insights around ticket trends—precisely what this project simulates.

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**Feasibility**

The problem can be addressed using:

- **SQL:** For querying and joining ticket and sentiment data
- **Python:** For building the data pipeline
- **Visualization Tools (e.g., Tableau or Amazon QuickSight):** To present insights interactively

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**Data Sources**

1. **API – Ticketmaster Discovery API**

- **Method:** API
- **Description:** Provides event, venue, and ticket inventory data by genre and location
- **Link:** https://developer.ticketmaster.com/products-and-docs/apis/discovery-api/v2/

2. **Web Scraping – Twitter/X Event Hashtags**
   - **Method:** Web scraping (via Tweepy)
   - **Description:** Extracts audience sentiment from tweets using event-specific hashtags (e.g., #BeyonceLA)
   - **Link:** https://developer.twitter.com/en/docs/twitter-api

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**Relevance of Data Sources**

Ticketmaster's event data closely reflects what the internship will use. Social sentiment adds context and supports the storytelling approach LiveAnalytics values.

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**Solution Approach**

**Step 1:** Use Python to extract data from the Ticketmaster API and Twitter.
**Step 2:** Store and clean the data in SQL, calculate sentiment averages and ticket availability.
**Step 3:** Build a dashboard to highlight demand hotspots and buzz metrics.

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**SQL Query Types**

- **Data Cleaning Queries:** Format and standardize event names, timestamps, and venue IDs.
- **Join Queries:** Combine ticket data with sentiment scores using hashtags or event keywords.
- **Aggregation Queries:** Compute average sentiment, tweet volume, and ticket availability.
- **Filtering Queries:** Identify high-interest, low-availability events.
- **Time Series Queries:** Track sentiment and tweet activity leading up to events.
- **Grouping Queries:** Summarize insights by event, date, or venue.