Conner Bartels
Slam Dunk Strategy: Leveraging NBA Fan Data for Targeted Marketing
Project Proposal
GitHub Repository

Job Description

I selected the Data Fulfillment Analyst position for the National Basketball Association (NBA) in New York, NY. The role focuses on leveraging fan data, data strategy, and digital marketing technologies to help NBA partners grow their businesses. It requires SQL skills, experience with CRM platforms, and a solid understanding of marketing technology.

This job aligns with my career goals because I could see myself working at the intersection of sports, data, and marketing. I have fun using data to generate insights that could improve performance and business outcomes. Working for a global brand like the NBA, where I can contribute to audience targeting and marketing optimization, is both exciting and aligns with my aspirations.

Problem

The problem I plan to solve is:
How can the NBA optimize ad targeting strategies for its partners by analyzing trends in fan engagement and purchasing behavior?

This problem is directly relevant to the job because the analyst will be responsible for segmentation, onboarding audiences to ad platforms like Meta and Google, and making optimization recommendations. It is feasible to solve using SQL, a structured data pipeline, and a visualization dashboard built in Power BI or Tableau.

Data Sources

1. **API Data Source:**
   → **Name:** Sportsdata.io NBA API
   → **Link:** https://sportsdata.io/developers/api-documentation/nba
   → **Collection Method:** Python API request
   → **Relevance:** This API provides data on player stats and game performance, which helps identify popular teams/players and trending games

2. **Web Scraped Data Source:**
   → **Name:** NBA Store (https://store.nba.com)
   → **Collection Method:** Web scraping with Python using BeautifulSoup
   → **Relevance:** Provides data on popular merchandise and promotions, useful for aligning ad targeting with product interest

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Solution

I will extract and load data from the API and the web into an AWS RDS PostgreSQL database, then transform and analyze the data using SQL. My analysis will answer two questions per data source (descriptive and diagnostic) using features such as GROUP BY, JOIN, CTE, and window functions. The results will be visualized using Power BI or Tableau dashboards to support actionable insights for marketing partners.

This solution mirrors the NBA role's core responsibilities, demonstrating my ability to reason about data, use SQL effectively, and generate insights that can be communicated to stakeholders.