

Steven Lo

Enhancing Hockey Team Dynamics with Data Analytics

https://github.com/Stevenlo11/isba_4715_final_project

Job Description

As a Data Scientist specializing in sports analytics, my role entails using data to solve complex problems in the context of hockey. My job involves analyzing various player data to build predictive statistical models that aid in team strengthening and strategy development.

My selection of this job stems from my dual background as a hockey player and an Information System and Business Analytics major. I possess the unique combination of industry knowledge and analytical skills that qualifies me for this specialized role.

The position directly aligns with my career goal of becoming a data analyst. It offers a practical application of my academic pursuits in a field I am passionate about—hockey.

This job captivates my interest as it allows me to use data to potentially improve a team's performance and apply my analytical skills to a domain I love.

Problem

The project aims to identify optimal new players for a hockey team and predict potential injuries, utilizing annual NHL draft data.

The ability to select the right players and anticipate injuries is central to a hockey team's success and directly correlates with the responsibilities of a Data Scientist in sports analytics.

The problem is well-suited to be tackled using SQL for data manipulation and storage, paired with Tableau for data visualization and analysis.

Data Sources

API: Sportradar's NHL API provides players' names, birthplaces, and experience.

<https://developer.sportradar.com/ice-hockey/reference/nhl-overview>

Web Scrape: Elite Prospects website, offering detailed game-by-game scoring records.

Both sources are pertinent as they offer comprehensive data essential for the analytical processes required by the job.

<https://www.eliteprospects.com/>

Solution

To address the problem, SQL queries will extract players' basic information and aggregate performance metrics. Tableau dashboards will visualize this data, allowing for an interactive evaluation of player statistics and trends.

SQL will be used to manage player data effectively, while Tableau dashboards will offer a platform to assess and interact with the data to make informed decisions.