

Draft Analysis 2024



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https://github.com/Stevenlo11/isba_4715_final_project

Assisting LA Kings Hockey Team

- Identify Team Weakness
- Scouting New Players
- Utilizing Advanced Data
- SQL Queries for insight



Job Description



- Python Data Visualizations
- SQL Data Handling
- Hockey Knowledge Essential
- Custom Reports and Dashboards
- Data Acquisition and Cleaning

Essential Duties & Responsibilities:

Specific duties include but are not limited to:

- Utilize various hockey data sources, including new spatiotemporal tracking data, to build predictive statistical models which will aid in decision making pertinent to player acquisition, roster construction, and many other areas of Hockey Operations
- Create customized reports, visualizations, and dashboards designed to ease the data interpretation process
- Work with Data Engineers and the entire Data Science team to help with the acquisition of data using automated coding pipelines

API DATA SOURCE

Sportradar <https://developer.sportradar.com/>

- API for real time Data
- Secure and Reliable
- Efficient Data Integration



LA Kings Performance Analysis

Weakness: LA kings Offense

Insight: Low offensive number compare top 10 teams

Strength: Defense

Recommendation: More shots and pass

Prediction: High chance to win more game



Kings Roster Performance



Insight: Center and RW are relative weak

Recommendation: Trade or Train

Prediction: Increase Wins

Position	PlayerName	goals_per_game	assists_per_game	points_per_game	shots_per_game
C	Trevor Lewis	0.098	0.098	0.195	1.585
C	Blake Lizotte	0.113	0.129	0.242	1.226
D	Jacob Moverare	0.042	0.000	0.042	0.458
D	Andreas Englund	0.012	0.110	0.122	0.500
RW	Carl Grundstrom	0.160	0.080	0.240	1.900
RW	Alex Laferriere	0.148	0.136	0.284	1.815

WEB SCRAPE DATA SOURCE

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

- Real time Data
- Secure and Reliable
- Efficient Data Integration



Draft Player Analysis



Insight: 28 Player meet the requirements

Recommendation: Compare the player's stats with them league currently playing

Prediction: Number of suitable players will decrease

full_name	position	league	height	weight	gameplay	goals_per_game	assists_per_game	points_per_game	penalties_seconds_per_game
Adam Jecho	RW	WHL	6'5"	201	54	0.43	0.44	0.87	26.67
Alexander Zetterberg	C	J20 Nationell	5'8"	159	45	0.47	0.82	1.29	21.33
Christian Humphreys	C	NTDP	5'11"	170	46	0.43	0.74	1.17	26.09
Christopher Thibodeau	C	OHL	5'9"	143	68	0.31	0.57	0.88	12.35
Cole Beaudoin	C	OHL	6'2"	201	67	0.42	0.51	0.93	24.18

Draft Player Analysis

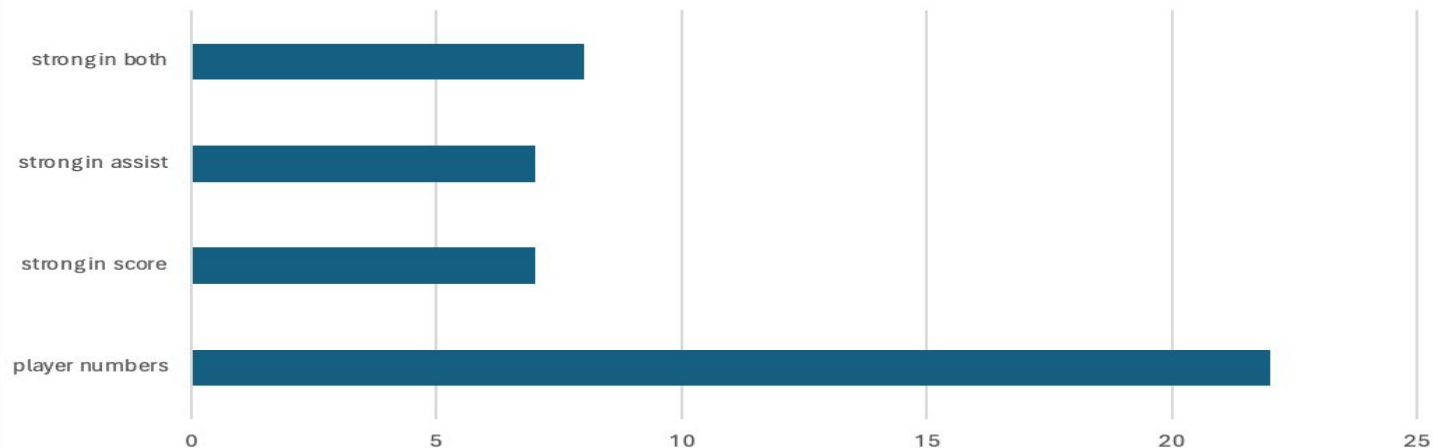
Insight: 22 Players meet the requirements in the end

Recommendation: Compare the player's height, weight and previous stats

Prediction: Find the best player who can bring more win for the team



Player's Strength



Conclusion

- Role: Data-Driven Decisions
- Tools: SQL, Python, APIs
- Finding: 21 Key
- Players Strategy: Enhanced Roster
- Outcome: Better Performance

“Data is the new oil.” — Clive Humby.