Final Project: Into the Leafs Verse

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STAT 442: Statistical Data Visualization

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Intro to the Leafs' Verse

This is the year. The year when everything changes. The year that the Toronto Maple Leafs won the championship. As a Torontonian, I will be watching every single playoff game. Do you also want to but don't know much about the Leafs? Well, fear not! Agent 00-alpha is here to save the day. I will break it down into 4 key plots that will showcase our captain, offence, defence and which teams to worry about.

By the end, you will be ready to become a truly patriotic Torontonian as the Leafs finally bring it home!

We will start off by looking at a Radar plot of the starting centers from the top teams and wild card cores. Then, look at the goal positions from our forwards, both home and away. This will be followed by a summary table of our defencemen and, finally, the tier list to showcase where each team is ranked in terms of how many times we lost to them over the last 3 years. The data for plots 1 and 3 were downloaded from the Evolve Hockey website, and the data for plots 2 and 4 were downloaded from the Money Puck Git Hub.

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Radar Plots

Let's look at these radar plots to see where our captain and center, Auston Matthews, sits compared to other top-league centers. In this, we look at Conference leaders and the wild card cores.

Each stat shows that the best guy in our group scores 100%, and everyone else slots in below them. The seven spokes we use in our plots are Goals (G), Assists (A), Points (Pts), Shots on Goal (SOG), Faceoff Differential (FO ±)(how many puck drops were won), Hits, and Ice Time (TOI).

Looking at this plot, we can categorize players into Pure Shooters, Playmaking specialists and the Injured Players.

The Pure Shooters:

- Our Captain, Auston Matthews, has the most shots on goal (100%) and highest faceoff differential (100%), proving he's ready to seize possession and drive the attack whenever he steps on the ice. He also sits around 75% in goals, highlighting his sniper role.

- Mark Scheifele logs 100% ice time, 100% in goals, and is strong across the board with around 70% in shots on goal. This shows he's both the workhorse and a reliable finisher night after night.

The Playmaking Specialists:

- Dylan Strome is our top setup man, posting around 90% in assists, 75% in points, and a solid 60% in faceoff wins. He doesn't specialize in just one particular area but delivers solid numbers across the board.
- Tim Stützle mixes around 80% in assists with 100% in hits, yet he, too, has trouble on the dot (below 20% in FO ±) and posts low goal numbers (around 25%).
- Jack Eichel tops the charts in assists (100%) and total points (100%), showing that he's the ultimate playmaker who consistently fuels his team's attack.

Injured Player

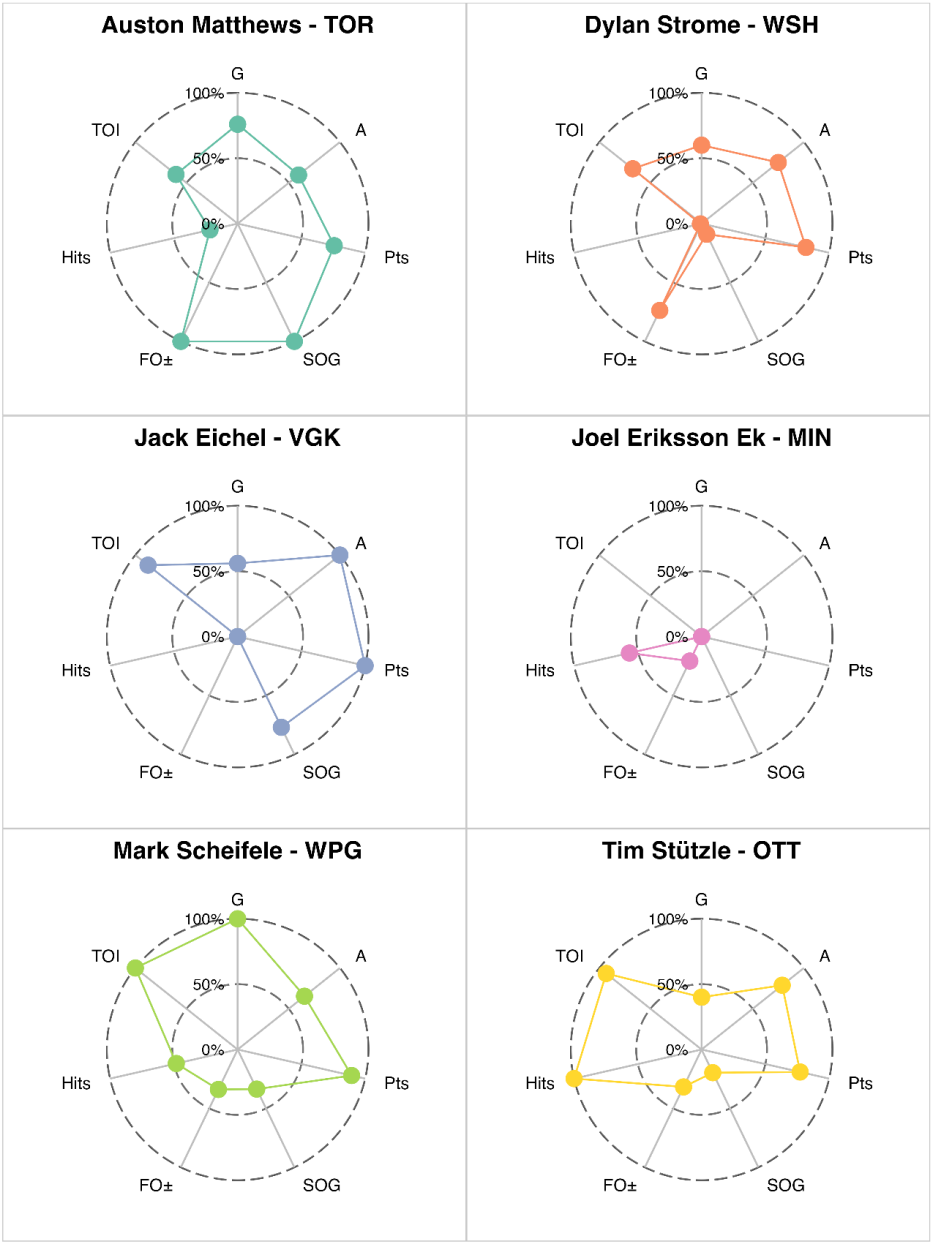
- Joel Eriksson Ek seems to be low in all categories, and this makes sense. He was injured for most of the season, hence why many of his stats are lower compared to the rest.

What This Means

These radar plots showcase each center's specialties and what they are known for. Mathews is a heavy shooter with the most shots on goal, making him go for finishing chances. Eichel is a playmaker as he racks up the most assists, which makes him ideal for the power play unit. Scheifele's heavy ice time and scoring mean he can carry the load and pop off on a consistent basis. Strome and Stützle bring creative flair but need linemates to shore up faceoffs and two-way play as their stats relatively still lack compared to the others. As for Ericsson, you are going to have to be tuned for next season's report to see what he brings to the table! However, overall, it makes sense that many centers do not get too aggressive with hits and focus more on playmaking and scoring to get the most out of the offence and wingers.

2024–25 Regular Season Center Comparison

Conference Leaders and Wild Card Cores



Legend:
G = Goals
A = Assists
Pts = Points (G + A)
SOG = Shots on Goal
FO± = Face off Differential
Hits = Individual Hits
TOI = Total Ice Time (minutes)

Geographical Rink Map

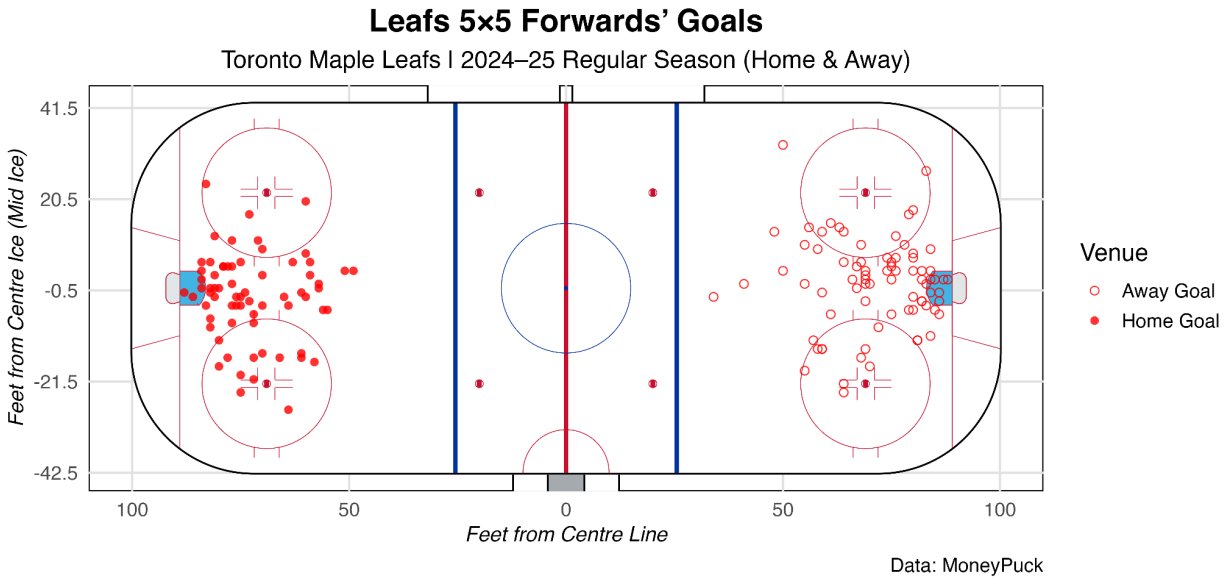
This rink visualization highlights the Toronto Maple Leafs forwards' goal-scoring tendencies during 5-on-5 play in the 2024–25 regular season. Goals at home are solid red points, while away goals appear as hollow circles. Looking at the rink, we can see a clear strategy at play as our forwards consistently focus on getting into high-danger areas right near the crease and slot.

Roughly 80% of all goals were scored within 25 feet of the net, and about 70% were directly in the slot (coordinates approximately between x = ±20 and y = 0 to −20). This means they are able to break down the defence well and make an opening right at the net. This also indicates strong net front prescient and opportunistic finishing.

At home, the Leafs generate more concentrated goals near the crease, showing stronger net-front presence and offensive pressure. Over 40 home goals appear within a 10-foot radius of the blue paint, suggesting excellent close-range coordination and screening. Away goals are more spread out, suggesting room to improve puck control and create a high-danger chance on the road.

Close-range goals are great, but diversifying the attack with more consistent perimeter scoring has been one of the greatest weaknesses for the Leafs this season. Only around 10% of goals came from outside the hash marks (beyond x = ±30), with very few attempts between the circles and the boards. Scoring or shooting from around the circles could help break down stronger defensive teams. Scoring from there is a lot harder, but with Auston Matthews's accuracy, it is definitely something they need to add, especially during these playoffs.

Our away-goal spread suggests adaptability, but improving accuracy and volume of shots from a distance might open up defences more effectively and provide an edge when opponents tighten coverage down low. Adding this would make the forwards unstoppable.



GtTable

We have looked at our captain and our offence, and now it is time for the defence. This Gt table summarizes all the important defensive statistics for the 2024-2025 regular season. Morgan Rielly, Jake McCabe, and Oliver Ekman-Larsson(OEL) with green highlights in the time on ice section showcase how much the coaching staff rely on them to keep the puck away from their zone, as they all averaged over 21 minutes a night. The bars at the table clearly showcase Chris Tanev as the blocks leader, Simon Benoit as the hits leader, and OEL as the takeaways leader.

Rielly leads the group with 34 assists and 131 blocks but also racks up 99 giveaways, the highest on the team. While he drives the offence from the back end, those giveaways often open the door for the opposition to strike back.

McCabe finished this regular season with 21 assists, 135 blocks, 118 hits, and only nine giveaways, making him the team's most balanced-defender. This indicates his efficiency and ability to keep the puck out of danger.

Larsson had 25 assists and 108 hits and led the defence with 28 takeaways, which also indicates a strong season. However, he also had 95 giveaways, which are of concern and similar to Rielly's high-risk, high-reward playing style. Toning this down for the playoffs will help strengthen the defence.

Simon Benoit is the leading physical defender with 204 hits and 111 blocks while playing 16.5 minutes per night. Connor Timmins had a mediocre season with 40 hits and 44 giveaways across 51 games. Improvement in aggressiveness could help him tap into his full potential for the playoffs. Philippe Myers also chipped in 76 hits in 36 games, while Brandon Carlo and Dakota Mermis filled in when needed.

Chris Tanev, Morgan Rielly, Jake McCabe, and Oliver Ekman-Larsson were counted on for the big minutes and in charge of the defensive production. However, the Leafs would benefit from better puck management, as Rielly and OEL carry the puck a lot, inflating their turnover stats. Improving on this would directly strengthen the defence, as fewer giveaways would ensure higher possession.

The playoff's defensive formula is evident. Rielly and OEL need to create offence while trusting McCabe to anchor things. They should also let block leader Chris Tanev stay at the back end, ensuring the puck stays away from the net.

2024–25 Maple Leafs Defense Summary

The Nine D-Men, ranked by Blocks[1,2]

Player	GP	TOI per GP (min)	Assists	Blocks	Hits	Takeaways	Giveaways	Blocks	Hits	Takeaways
Chris Tanev	75	19.7	15	190	20	10	80			
Jake McCabe	66	21.5	21	135	118	9	83			
Morgan Rielly	82	21.4	34	131	21	20	99			
Simon Benoit	78	16.5	9	111	204	16	70			
Oliver Ekman-Larsson	77	21.1	25	83	108	28	95			
Conor Timmins	51	16.3	6	77	40	10	44			
Philippe Myers	36	16.2	3	42	76	13	45			
Brandon Carlo	20	19.2	3	38	26	7	25			
Dakota Mermis	3	16.7	1	3	3	0	5			

[1] 🔴 *Giveaways*: darker red = more giveaways

[2] 🟩 *TOI per GP*: green = over 20 minutes/game

Data: Evolve Hockey

Tier list

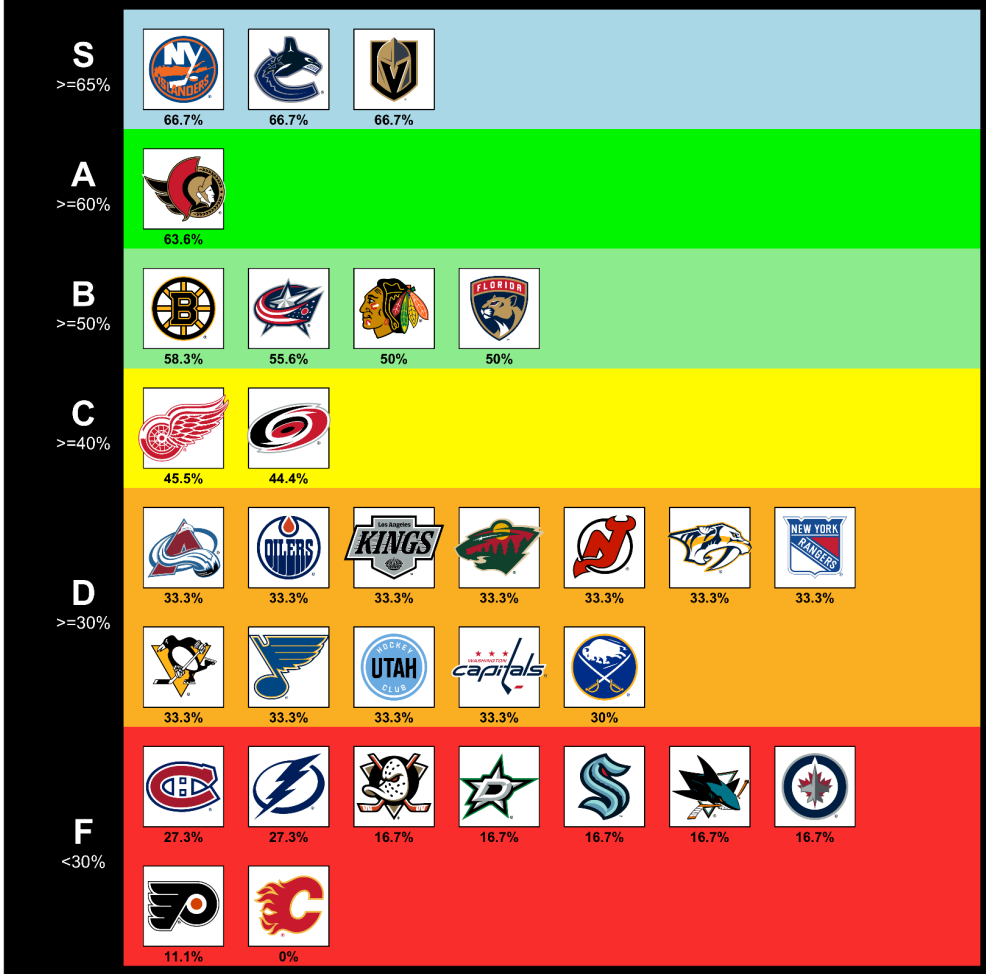
This tier list breaks down how often the Leafs lost to each team between the 2022 and 2025 regular season. In S-tier opponents, we have the Islanders, Canucks, and Golden Knights gave Toronto the most trouble, winning two out of every three games. Ottawa, who we currently face in the playoffs, sits behind them, which stings a bit more since that's our divisional rival. Losing to Vegas or Vancouver is one thing, but dropping that many games to the Sens definitely stands out.

Teams like Boston, Columbus, and Florida are in our B tier (mid-opponents). We have won almost as much as we have lost, which also poses a threat as it is anyone's game against these teams. Carolina and Detroit are slightly below that, which shows the Leafs handled them more consistently.

Let's get into teams the Leafs don't have to worry about. We have big names like Colorado, Edmonton, and New York in the D tier, but we only win one out of every three games against the Leafs. That's a strong showing against top-tier competition. You do not have to watch these games, as the outcome will probably be in the Leafs' favour. Then there's the F tier, where teams like Calgary, San Jose, and Philly struggled badly. Calgary didn't win a single game. The Leafs really know how to extinguish that flame!

This tier list ranked the opponents and showcased games that were exciting in the regular season and which were not. Seeing the Leafs play S, A, and B-tier teams is always interesting and thrilling, as getting those wins means a lot. Let's hope our divisional rivals don't play like they have these past seasons so that we can move forward in the playoffs and finally win that shiny Stanley Cup!

Leafs Loss % vs Opponents (22–25)



Data: Money Puck

Closing Remarks

Now that you are a Toronto Maple Leafs expert. Just remember, the playoffs are a very emotional time. Watch every game with love and excitement, but remember not to get your hopes up; otherwise, your heart will be broken. This is the year, like every year is the year for the Leafs. But this year is different. We have the best team and the best fans. We will bring the cup back to the north!

Through these statistical visuals, you got a glimpse into the performance of our captain, a deep dive into our goals, a look at our defencemen, and the opponent tier list. You have made it to the end, but this is just the beginning of your Leafs journey. I'm glad you're here, and I hope you stay!

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