

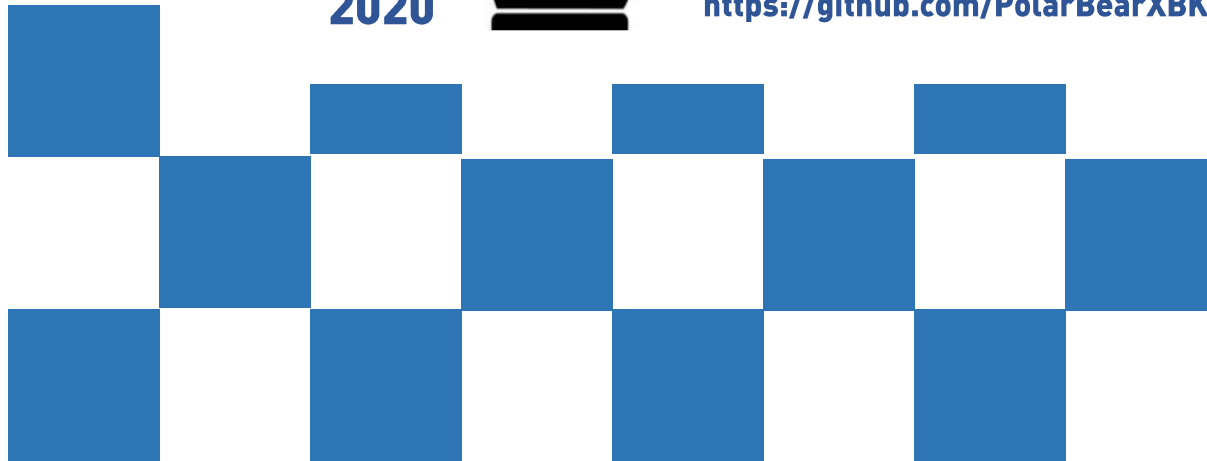


# Chess Games

**Oct.16  
2020**

**Ben Xiong, DSI**

<https://github.com/PolarBearXBK/1030Chess.git>



# Intro

# The Elo system

# Current top players

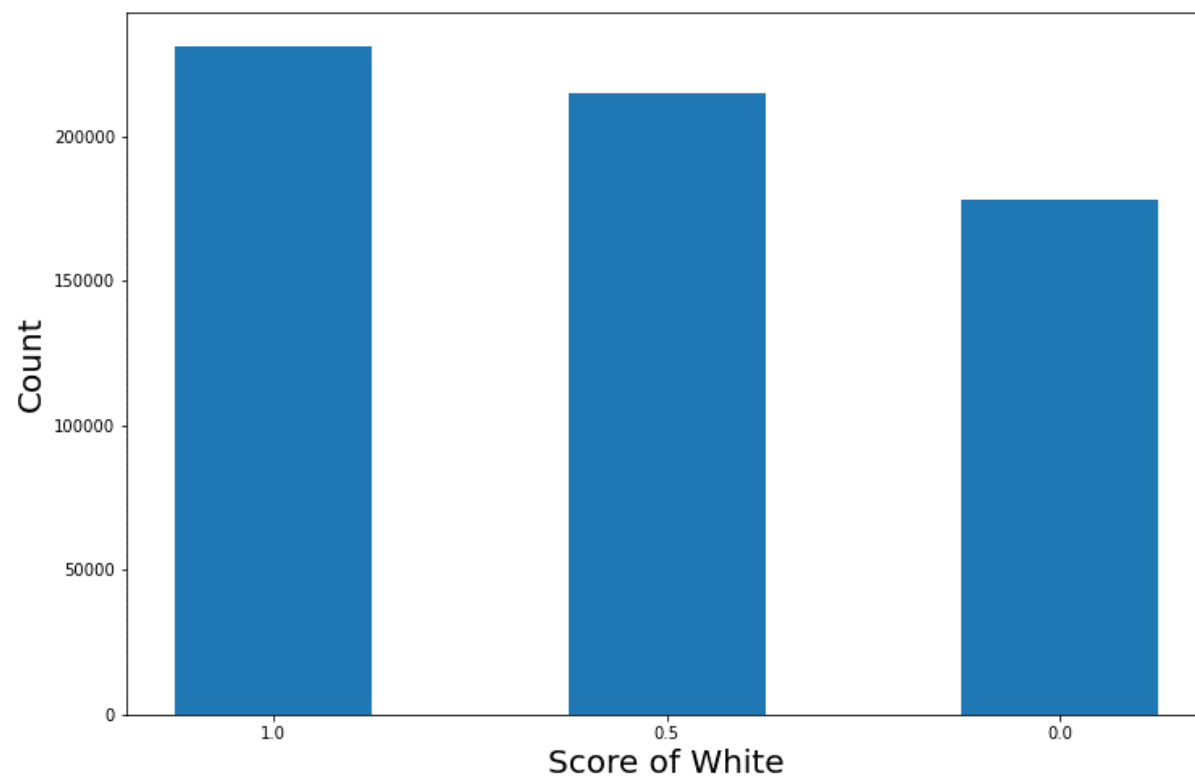
Oct 2020

Rank	Name	Title	Country	Rating	Games	B-Year
1	<a href="#">Carlsen, Magnus</a>	g	NOR	2863	0	1990
2	<a href="#">Caruana, Fabiano</a>	g	USA	2828	5	1992
3	<a href="#">Ding, Liren</a>	g	CHN	2791	0	1992
4	<a href="#">Vachier-Lagrave, Maxime</a>	g	FRA	2784	5	1990
5	<a href="#">Nepomniachtchi, Ian</a>	g	RUS	2784	0	1990
6	<a href="#">Grischuk, Alexander</a>	g	RUS	2777	0	1983
7	<a href="#">Mamedyarov, Shakhriyar</a>	g	AZE	2770	4	1985
8	<a href="#">So, Wesley</a>	g	USA	2770	0	1993
9	<a href="#">Aronian, Levon</a>	g	ARM	2767	4	1982
10	<a href="#">Radjabov, Teimour</a>	g	AZE	2765	0	1987

# EDA

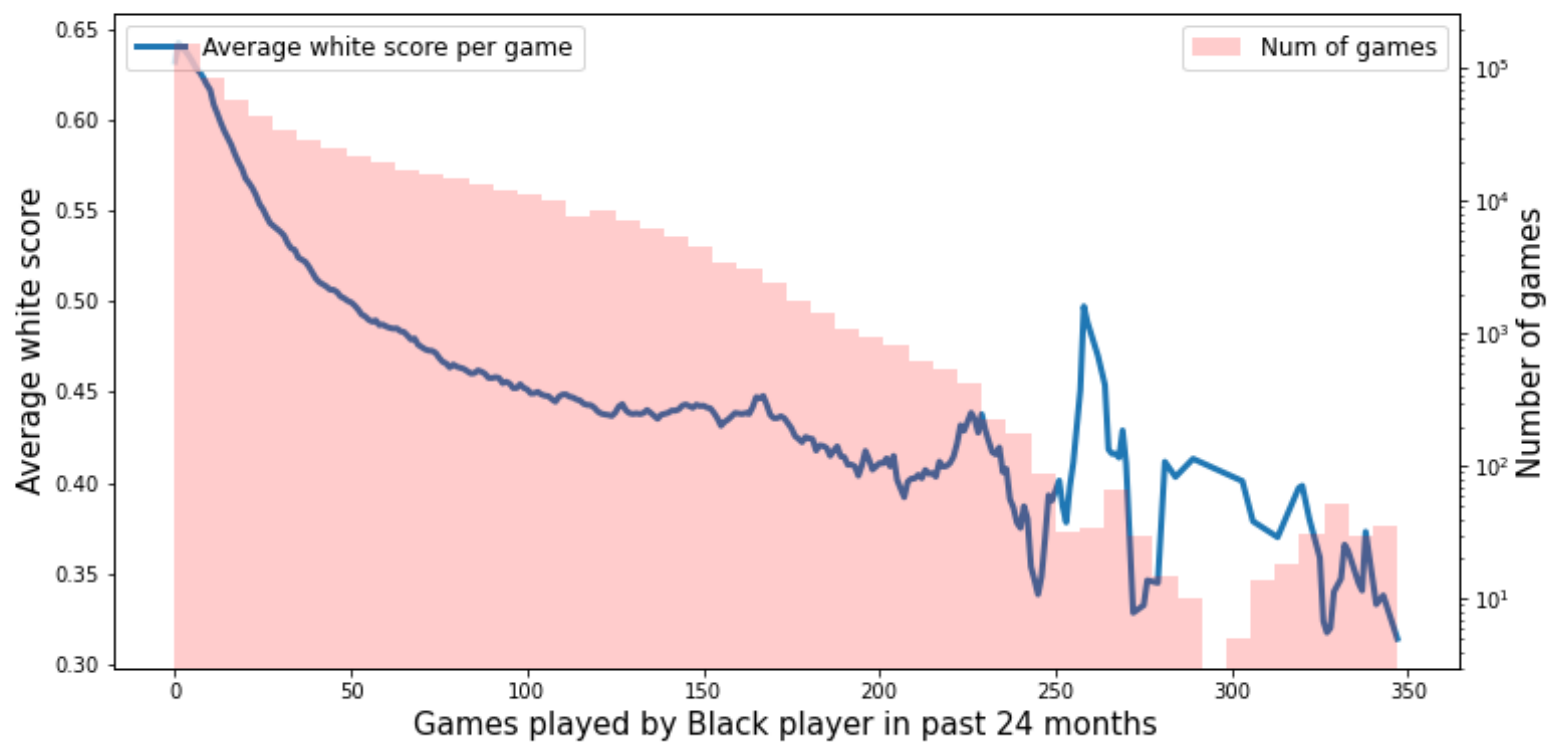
# EDA

**White victories amongst all games  
(~600,000 games)**



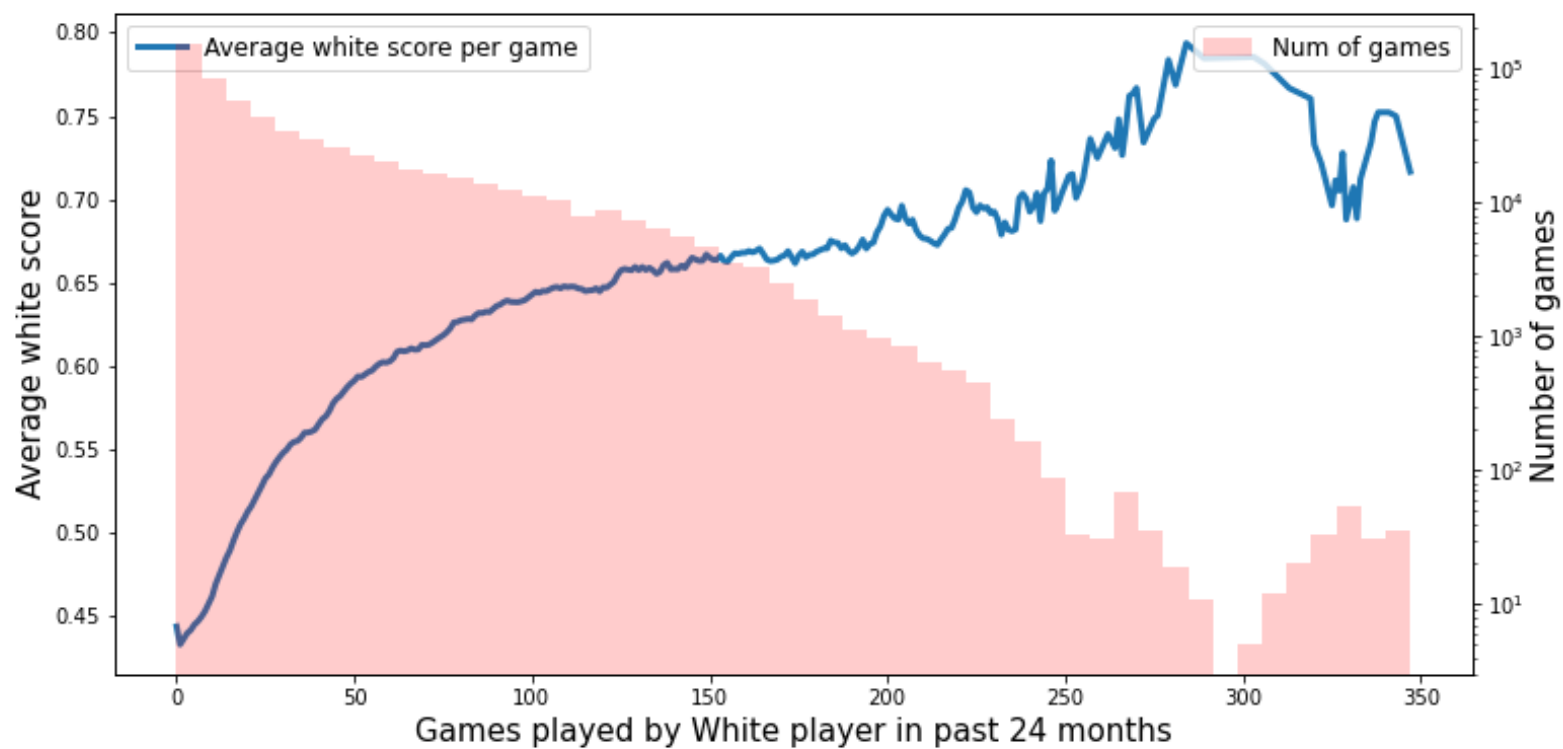
# EDA

## White victories against experience of black player, (~600,000 games)



# EDA

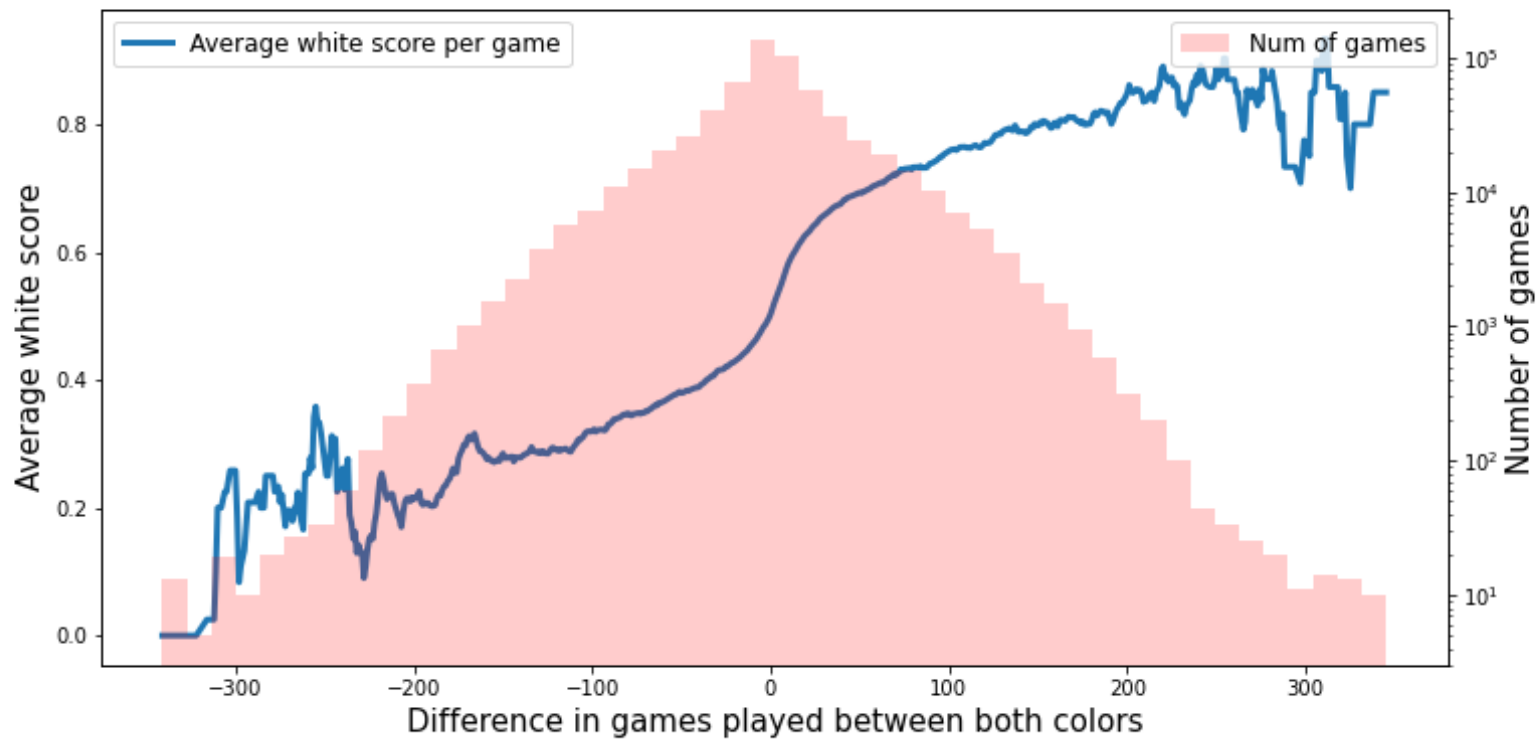
## White victories against experience of white player, (~600,000 games)





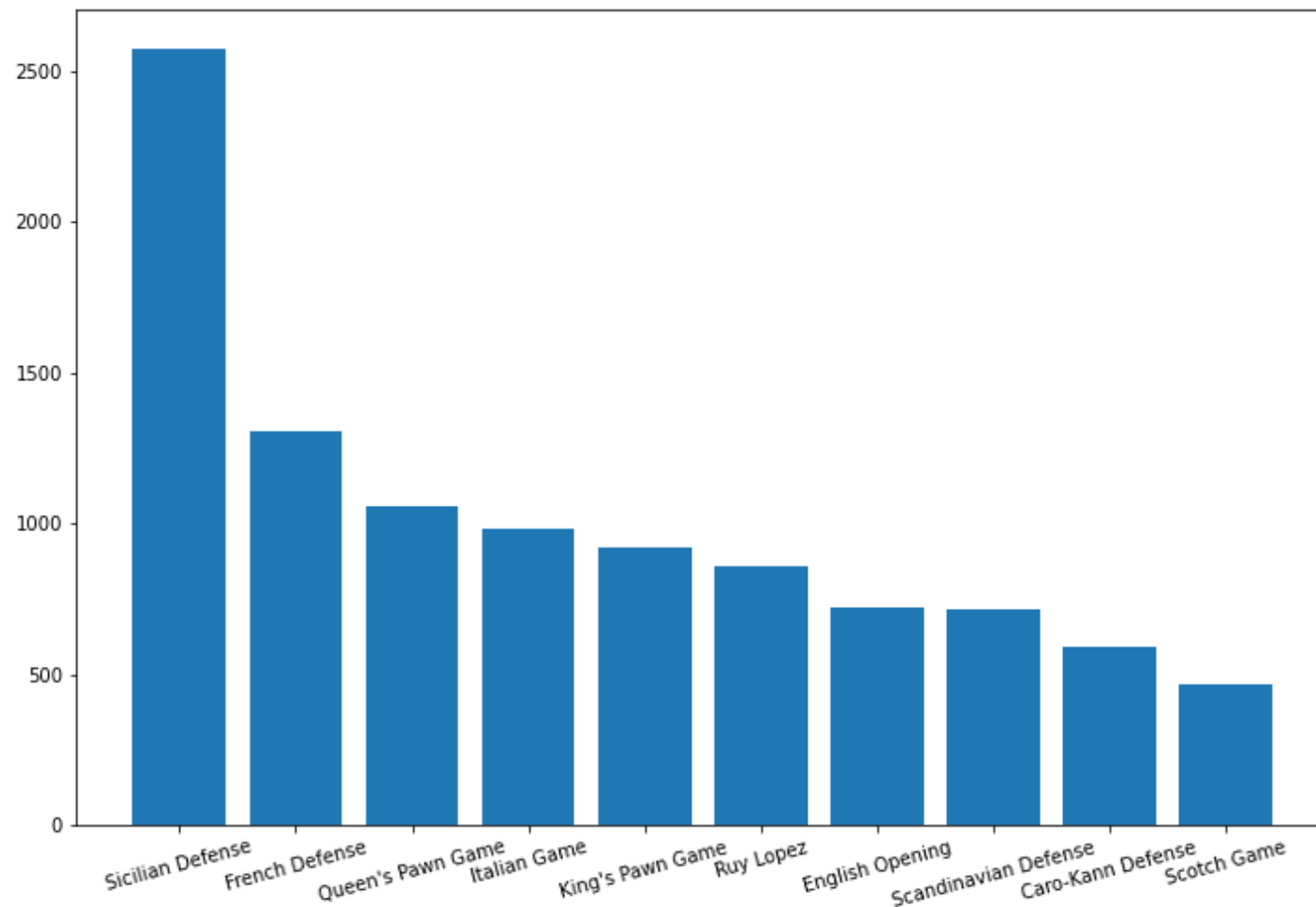
# EDA

## White victories against difference in experience, (~600,000 games)



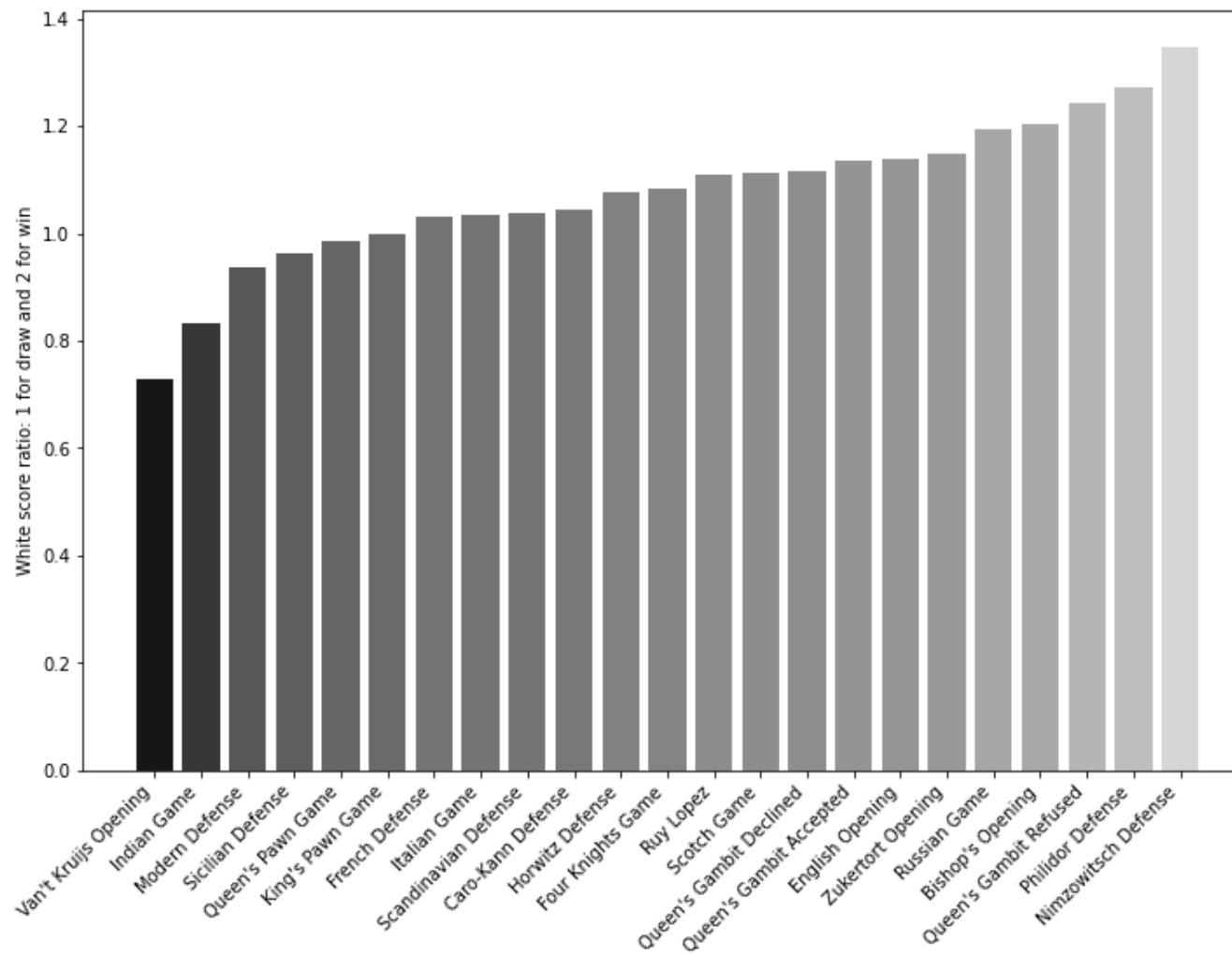
# EDA

## Opening Statistics (~20000 games)



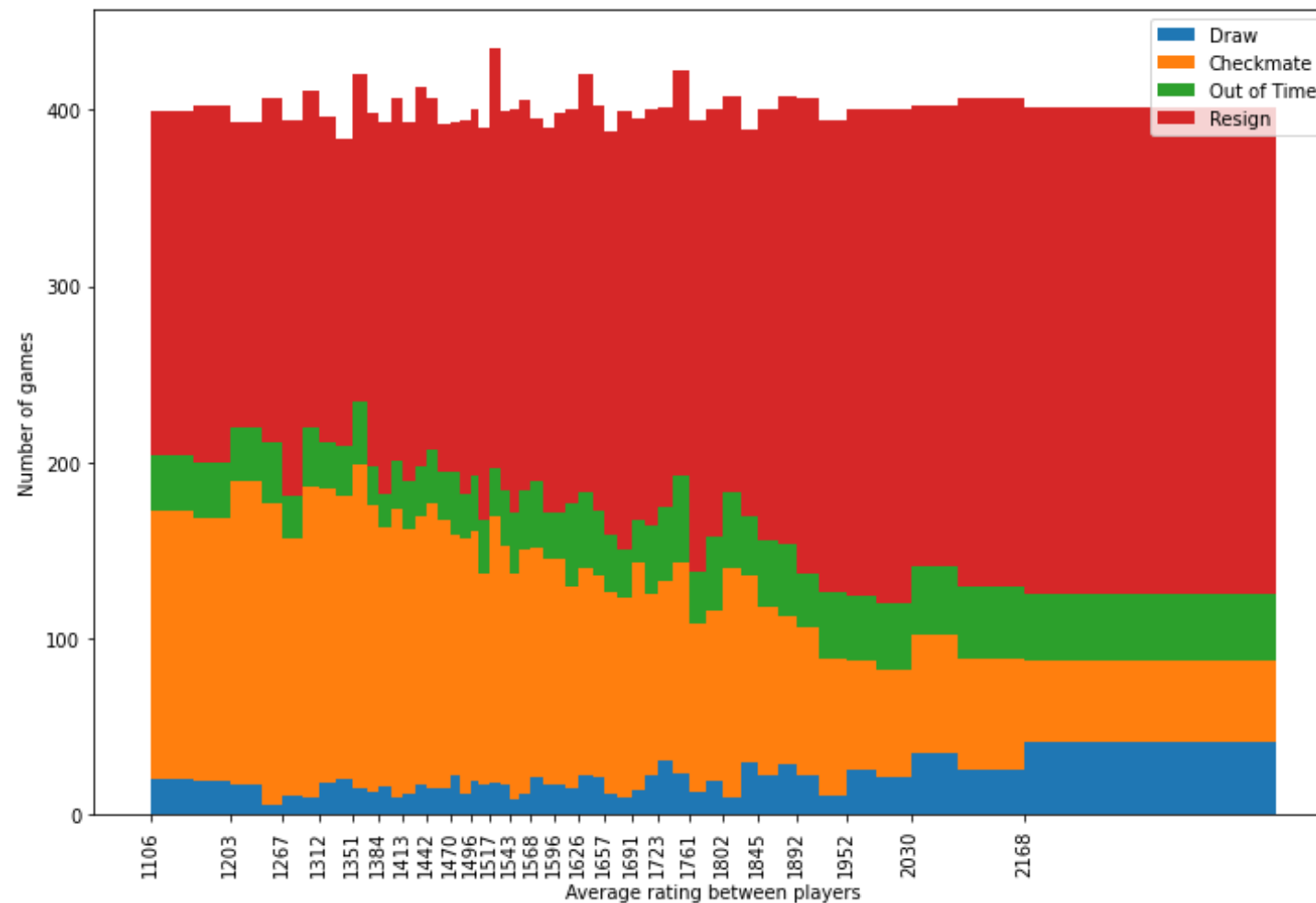
# EDA

Opening Statistics (~20000 games)



# EDA

Result vs rating (~20000 games)



# Preprocessing

# Preprocessing

main dataset

- **Feature engineering**
- **Games of the player in the past**
- **Player rating filing**

# Preprocessing

secondary dataset

- **String Processing - openings**
- **Time control**
- **Label Encoding - winner**

Thank you!