

league of legends soloq ranked games






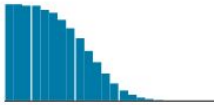
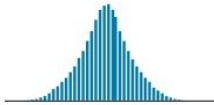
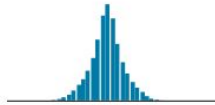
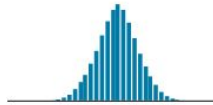
<https://github.com/davidfeliu/LOL-SOLO-Q-Ranked-Games-Predictor>

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Introducció al joc



Explicació Dataset

✓ hasWon 	# frame 	# goldDiff 	# expDiff 	# champLevelDiff 
If blue team has won the game or not	Time in the game in minutes (min)	Blue team gold difference	Blue team experience difference	Blue team champions level difference
242572 total values	 10 56	 -21578 23.4k	 -32484 43.3k	 -4 3.8
1	10	-448	-147	-0.20000000000000015
1	12	-1306	-925	-0.5999999999999996
1	14	2115	2578	0.4000000000000004
1	16	1195	2134	0.4000000000000004
1	18	2931	4382	0.5999999999999996
1	20	6127	7606	0.8000000000000007
1	22	7428	7842	1.4000000000000004
1	24	9426	11980	1.7999999999999992
1	10	898	934	0.0

Data Exploration

	gameId	gameDuration	hasWon	frame	goldDiff	expDiff	champLevelDiff	isFirstTower	isFirstBlood	killedFireDrake	killedWaterDrake	killedAirDrake
0	4546233126	1443000	1	10	-448	-147	-0.2	0	1	0	0	0
1	4546233126	1443000	1	12	-1306	-925	-0.6	0	1	0	0	0
2	4546233126	1443000	1	14	2115	2578	0.4	1	1	0	0	0
3	4546233126	1443000	1	16	1195	2134	0.4	1	1	0	0	0
4	4546233126	1443000	1	18	2931	4382	0.6	1	1	1	0	0

	gameId	gameDuration	hasWon	frame	goldDiff	expDiff	champLevelDiff	isFirstTower	isFirstBlood
count	2.425720e+05	2.425720e+05	242572.000000	242572.000000	242572.000000	242572.000000	242572.000000	242572.000000	242572.000000
mean	4.501480e+09	1.785494e+06	0.498128	19.811264	-11.413811	-215.019351	-0.026517	0.617709	0.998627
std	5.331693e+07	3.761901e+05	0.499998	7.197339	5438.051920	5261.880802	0.772366	0.485948	0.037026
min	4.357970e+09	5.490000e+05	0.000000	10.000000	-21578.000000	-32484.000000	-4.000000	0.000000	0.000000
25%	4.463051e+09	1.532000e+06	0.000000	14.000000	-3420.250000	-3148.000000	-0.600000	0.000000	1.000000
50%	4.529395e+09	1.774000e+06	0.000000	18.000000	24.000000	-123.000000	0.000000	1.000000	1.000000
75%	4.543718e+09	2.025000e+06	1.000000	24.000000	3409.000000	2772.000000	0.400000	1.000000	1.000000
max	4.547671e+09	3.428000e+06	1.000000	56.000000	23432.000000	43304.000000	3.800000	1.000000	1.000000

Data Exploration

Nulls:

```
]:
```

```
print('Total of missing values found:', dataset.isna().sum().sum(), '.')
```

```
Total of missing values found: 0 .
```

Objectiu

Atribut: hasWon

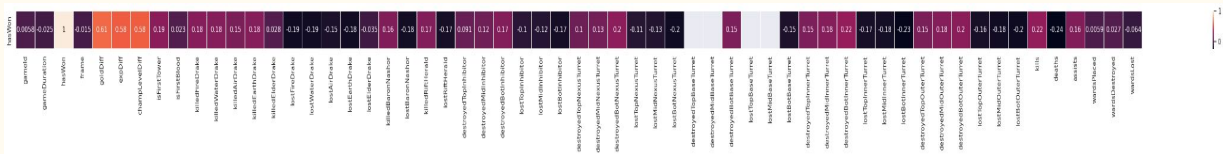
Correlation

Good attr (more than 30% of correlation):

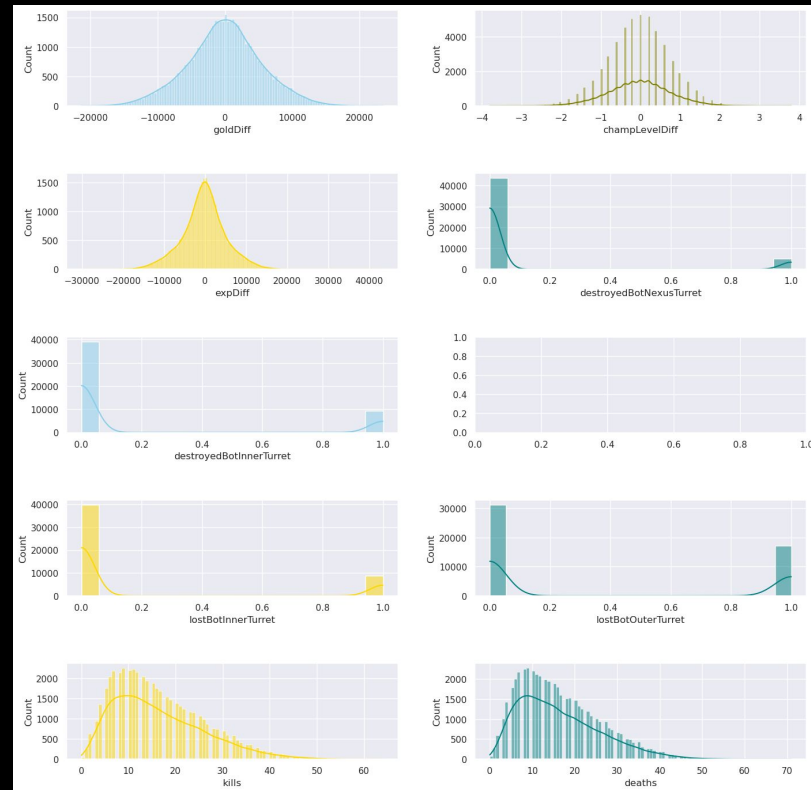
- goldDiff
- expDiff
- champLevelDiff

Normal attr(more than 20% of correlation):

- destroyedBotNexusTurret
- destroyedBotInnerTurret
- lostBotInnerTurret
- lostBotOuterTurret
- kills
- deaths



Historiogrammes



Data Preparation

```
|: ##First we will normalize the clean_dataset  
from sklearn import preprocessing  
clean_dataset = preprocessing.normalize(clean_dataset)
```

```
|:  
from sklearn.model_selection import train_test_split  
X_train, X_test, y_train, y_test = train_test_split(clean_dataset, y, train_size=0.8)
```

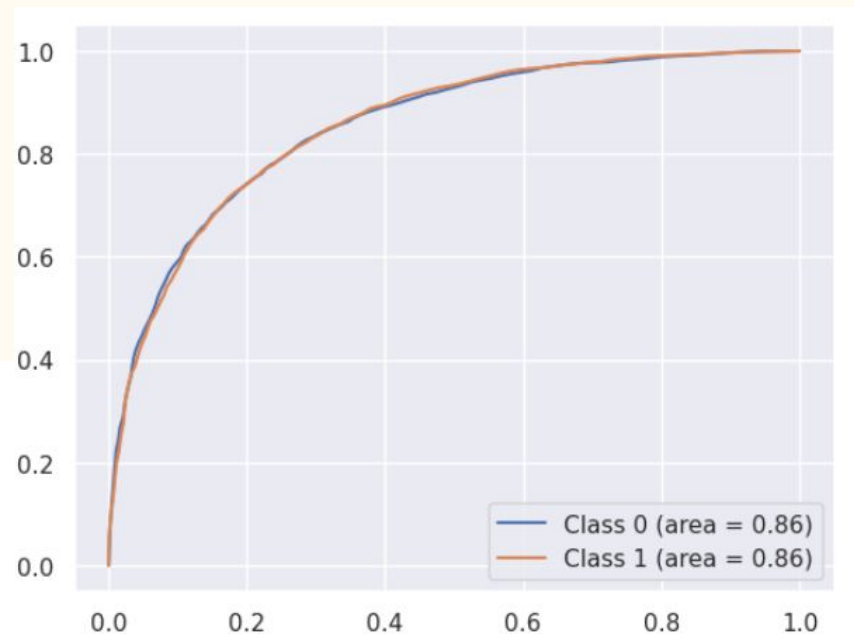
Metodes Utilitzats

- Random Forest(18,65s)
- SVM(814s)
- Knn(22s)
- SVC Linear(0.88s)
- Neuronal Network(76s)

Resultats obtinguts

- Resultat molt semblants
- Millor Model Random Forest

	precision	recall	f1-score	support
0	0.77	0.78	0.77	4816
1	0.78	0.77	0.77	4887
accuracy			0.77	9703
macro avg	0.77	0.77	0.77	9703
weighted avg	0.77	0.77	0.77	9703



Conclusió i treball futur

- Random Forest
- Model per cada instant de temps de partida