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Problem:

Predict the rank of a player using the input of all the damage they are dealing to the enemy team as well as all grenades that they are using also considering coordinates in the map.

CS:GO: is a multiplayer first-person shooter video game now having 386.643 avg. players at any given time.

Dataset:

Matchmaking data of online multiplayer game CS:GO (https://www.kaggle.com/skihikingkevin/csgo-matchmaking-damage)

366.25 Mb with 35.000 round.

We'll use 10 to 15 features (map, coordinates, damage dealt, etc.) for the prediction.

Output will be a rank from 1 to 20.

att_id	att_rank	vic_id	vic_rank	att_pos_x	att_pos_y	vic_pos_x	vic_pos_y
76561198085893650	17	76561198123082770	17	1473.8470000000002	1351.358	662.17	772.748
76561198223006752	16	76561198051040004	17	-1211.723	1060.813	-1184.006	1153.343
76561198051040004	17	76561198223006752	16	-1153.5839999999998	1163.131	-1198.015	1050.423
76561198223006752	16	76561198051040004	17	-1173.053	1044.365	-1141.785	1190.089
76561198051040004	17	76561198223006752	16	-1142.522	1200.9669999999999	-1157.69	1050.702
76561198051040004	17	76561198223006752	16	-1186.305	1211.955	-1082.756	1107.769
76561198051040004	17	76561198223006752	16	-1169.736	1223.639	-1071.763	1121.346
76561198051040004	17	76561198223006752	16	-1172.0330000000001	1220.779	-1062.3980000000001	1135.7730000000001
76561198081341202	16	76561198051040004	17	-1970.945	1303.599	-1316.848	1144.33
76561198081341202	16	76561198051040004	17	-1952.1979999999999	1271.127	-1335.286	1140.371
76561198081341202	16	76561198051040004	17	-1927.849	1233.287	-1357.149	1140.1580000000001
76561198081341202	16	76561198051040004	17	-1904.069	1199.587	-1373.7820000000002	1147.506

What data mining techniques:

- KNN
- Neural Network using Keras (https://keras.io/): deep learning python library

Quality measures:

- Cross validation
- Comparison