Datos Normalización Python SkLearn

Index	Brth15to17	Brth18to19	ViolCrime	PovPct
0	1.145975	0.879046	0.375258	1.632448
1	-0.420508	0.088556	0.139677	-1.406903
2	1.581109	1.606297	0.285513	0.697263
3	1.158407	1.564138	0.285513	0.416707
4	0.039491	-0.153861	0.375258	0.837541
5	0.487058	0.373132	-0.230522	-1.009450
6	-1.017263	-1.418646	-0.365140	-0.799033
7	0.300572	0.304623	-0.488539	-0.658755
8	2.799484	1.553598	6.410619	2.076661
9	0.114086	0.336243	-0.062250	0.720643
10	1.133542	1.095113	0.184549	-0.237922
11	-0.569696	-0.296150	-0.353921	-0.658755
12	-0.482670	-0.153861	-0.421230	0.323189
13	0.138950	-0.080082	0.274295	-0.167783
14	0.039491	0.341513	0.016277	-0.822413
15	-0.731318	-0.875843	-0.679248	-0.214542
16	-0.109698	0.114905	-0.185649	-0.541857
17	0.524355	0.673518	-0.073468	0.369948
18	1.170840	1.269021	1.025910	1.538930
19	-1.290776	-1.413376	-0.656811	-0.448339
20	-0.283751	-0.654505	0.442567	-0.705515
21	-1.216181	-1.708493	-0.477321	-0.495098
22	-0.532399	-0.591266	0.072368	-0.214542
23	-1.004830	-1.302707	-0.443667	-0.915931
24	1.904351	1.648457	0.565966	2.427355
25	-0.010238	0.241384	0.106022	-0.869172
26	-0.557264	-0.459518	-0.544630	0.510226
27	-0.495102	-0.412088	-0.555848	-0.822413
28	0.710841	1.300641	0.319167	-0.471718
29	-1.763207	-1.740112	-0.679248	-1.827737
30	-0.942668	-1.365947	-0.309049	-1.243246
31	1.929216	1.448199	0.106022	2.848189
32	-0.818344	-1.155149	0.072368	0.790781
33	0.785435	0.910666	0.173331	-0.121024
34	-1.315640	-1.228928	-0.780211	-0.261302
35	-0.271319	-0.138052	-0.275394	-0.378200
36	0.971921	1.348070	0.487439	0.931059
37	-0.507534	-0.380469	-0.421230	-0.448339
38	-0.631858	-0.965432	-0.174431	-0.214542
39	-0.333481	-0.686125	-0.510975	-0.588616
40	0.860030	0.799997	0.005059	1.585689
41	-0.619426	-0.222371	-0.679248	0.323189
42	0.735706	1.168892	0.307949	0.556985
43	1.978946	1.701156	0.128459	1.001198
44	-0.557264	-0.506947	-0.443667	-1.102968
45	-1.477262	-1.455536	-0.634375	-0.658755
46	-0.408075	-0.317229	-0.028595	-0.682135
47	-0.681588	-0.759904	-0.309049	-0.144404
48	-0.097265	0.457451	-0.331485	0.837541
49	-0.793480	-0.786254	-0.398794	-1.079589
50	-0.569696	0.004237	-0.645593	-0.214542

Datos Normalización C++

1.12917	0.849012	0.393124	1.56959
-0.345775	0.144063	0.15699	-1.25083
1.53888	1.49757	0.303168	0.701768
1.14088	1.45997	0.303168	0.441421
0.0873442	-0.0721218	0.393124	0.831942
0.508757	0.397845	-0.214077	-0.882008

-0.907659	-1.20004	-0.349011	-0.686748
0.333169	0.336749	-0.4727	-0.556575
2.68606	1.45057	6.44264	1.98181
0.15758	0.364947	-0.0454103	0.723464
1.11747	1.0417	0.201968	-0.166055
-0.486246	-0.199013	-0.337766	-0.556575
-0.404305	-0.0721218	-0.405233	0.354639
0.180992	-0.00632647	0.291924	-0.100968
0.0873442	0.369647	0.0333009	-0.708444
-0.638423	-0.715976	-0.663856	-0.144359
-0.0531269	0.167561	-0.169099	-0.448097
0.543875	0.665725	-0.0566548	0.39803
1.15258	1.19679	1.0453	1.48281
-1.16519	-1.19534	-0.641367	-0.361315
-0.21701	-0.51859	0.46059	-0.599966
-1.09495	-1.45852	-0.461455	-0.404706
-0.451128	-0.462194	0.0895232	-0.144359
-0.895953	-1.09665	-0.427722	-0.795226
1.84323	1.53516	0.58428	2.30724
0.0405205	0.280353	0.123257	-0.751835
-0.47454	-0.344702	-0.528922	0.528204
-0.416011	-0.302405	-0.540167	-0.708444
0.719464	1.22499	0.336901	-0.38301
-1.61001	-1.48672	-0.663856	-1.64135
-0.837424	-1.15304	-0.292789	-1.09896
1.86664	1.35658	0.123257	2.69776
-0.720365	-0.965058	0.0895232	0.788551
0.7897	0.87721	0.190723	-0.0575767
-1.1886	-1.03085	-0.765056	-0.18775
-0.205304	-0.0580228	-0.259055	-0.296228
0.965289	1.26728	0.505568	0.918724
-0.427716	-0.274207	-0.405233	-0.361315
-0.544776	-0.79587	-0.157855	-0.144359
-0.263834	-0.546788	-0.495189	-0.491488
0.859935	0.778517	0.0220564	1.5262
-0.53307	-0.133217	-0.663856	0.354639
0.742876	1.10749	0.325657	0.571595
1.91347	1.58216	0.145746	0.983811
-0.47454	-0.386999	-0.427722	-0.968791
-1.34078	-1.23294	-0.618878	-0.556575
-0.334069	-0.217811	-0.0116769	-0.57827
-0.591599	-0.612583	-0.292789	-0.0792723
-0.041421	0.473039	-0.315277	0.831942
-0.696953	-0.636081	-0.382744	-0.947095
-0.486246	0.0688681	-0.630122	-0.144359

Interpretación Datos normalizados (comparación)

Se evidencia una pequeña varianza entre los datos entregados por python y c++. Lo que nos indica que el proyecto realizado en el entorno Qt creator tiene un alto grado de precision pues el ya aceptado y comprobado modelo en python tiene un alto grado de similitud con las clases artesanales creadas.

DATOS SKLEARN

El promedio por columna es:

Brth15to17	Brth18to19	ViolCrime	PovPct
22.28235	72.01960	7.85490	13.11764

La desviación estandar es:

Brth15to17	Brth18to19	ViolCrime	PovPct
7.96425	18.78860	8.82630	4.23508

DATOS C++
El promedio por columna es:

Brth15to17	Brth18to19	ViolCrime	PovPct
21.8538	70.6346	7.70385	12.8654

La desviación estándar es:

Brth15to17	Brth18to19	ViolCrime	PovPct
23.6629	74.4301	11.8154	13.7844

Interpretación Promedios y Desviación Estandar (comparación)

Del mismo modo que con la normalización se observó una variación pequeña entre los datos promeddio entre las dos fuentes de información. Por otra parte se observó una drastica varianza entre las desviaciones del mismo grupo de información. Varianza no esperada y la cual pone en duda los resultados obtenidos por c++ (clase artesanal) en este apartado.