

Banana database:

Attribute 1	Attribute 2	Class
2.22	-2.04	-1
-0.103	-1.71	-1
0.196	-1.71	-1
-0.508	-1.7	-1
-0.362	-1.7	-1
-0.697	-1.69	-1
-0.335	-1.69	-1
-0.129	-1.69	-1
-0.826	-1.67	-1
-0.558	-1.67	-1
-0.126	-1.67	-1
0.105	-1.67	-1
-0.0958	-1.66	-1
-0.0339	-1.66	-1
-1.01	-1.65	-1
0.0379	-1.64	-1
-0.796	-1.63	-1
-0.575	-1.62	-1

0.875	1.82	1
1.01	1.82	1
-0.146	1.83	1
-0.502	1.84	1
-0.112	1.85	1
-0.0272	1.86	1
0.169	1.86	1
0.416	1.86	1
0.534	1.86	1
0.605	1.86	1
-0.283	1.88	1
0.942	1.89	1
-0.0203	1.92	1
0.667	1.92	1
0.75	1.92	1
0.0809	1.93	1
0.101	1.93	1
-0.635	1.94	1
0.452	1.95	1
0.216	1.96	1
-0.153	1.97	1
-0.0999	1.97	1
0.168	1.97	1
-0.353	1.98	1
0.364	1.98	1

Attribute #1:

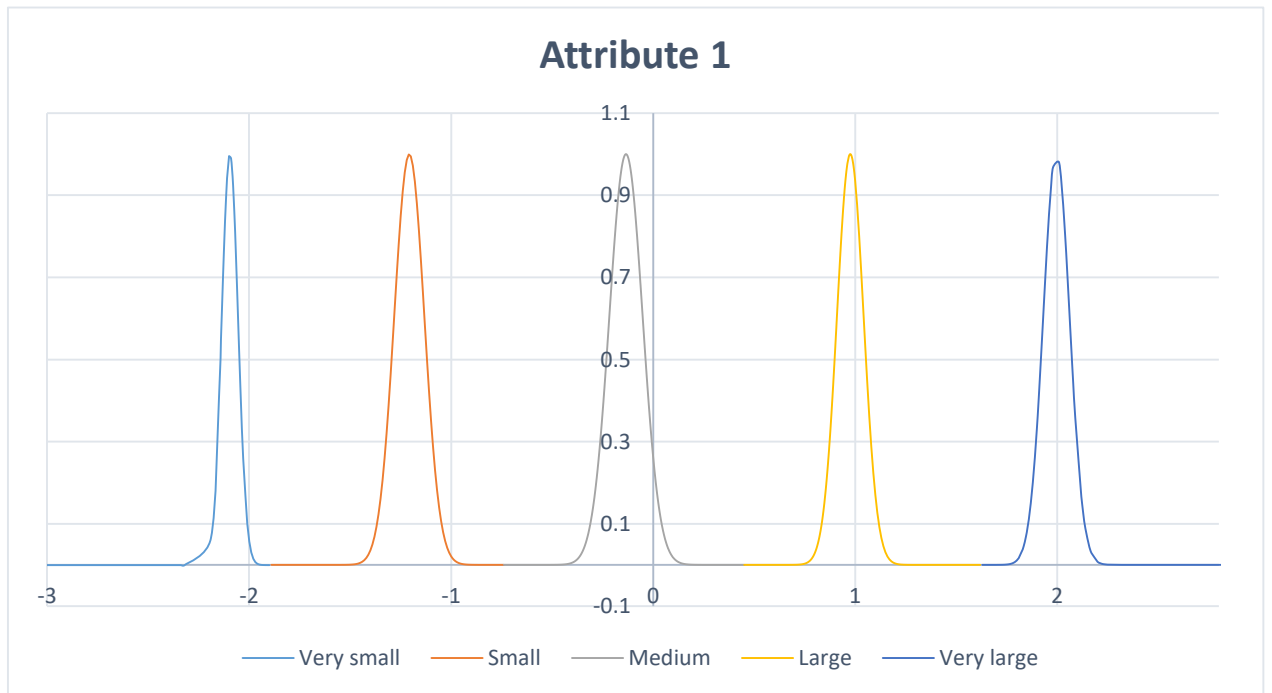
Very small: $f = e^{-\left(\frac{x+2.09603}{0.05683}\right)^2};$

Small $f = e^{-\left(\frac{x+1.20761}{0.105265}\right)^2};$

Medium $f = e^{-\left(\frac{x+0.13451}{0.116203}\right)^2};$

Large $f = e^{-\left(\frac{x-0.976095}{0.093193}\right)^2};$

Very large $f = e^{-\left(\frac{x-1.996647}{0.092057}\right)^2}.$



Attribute #2:

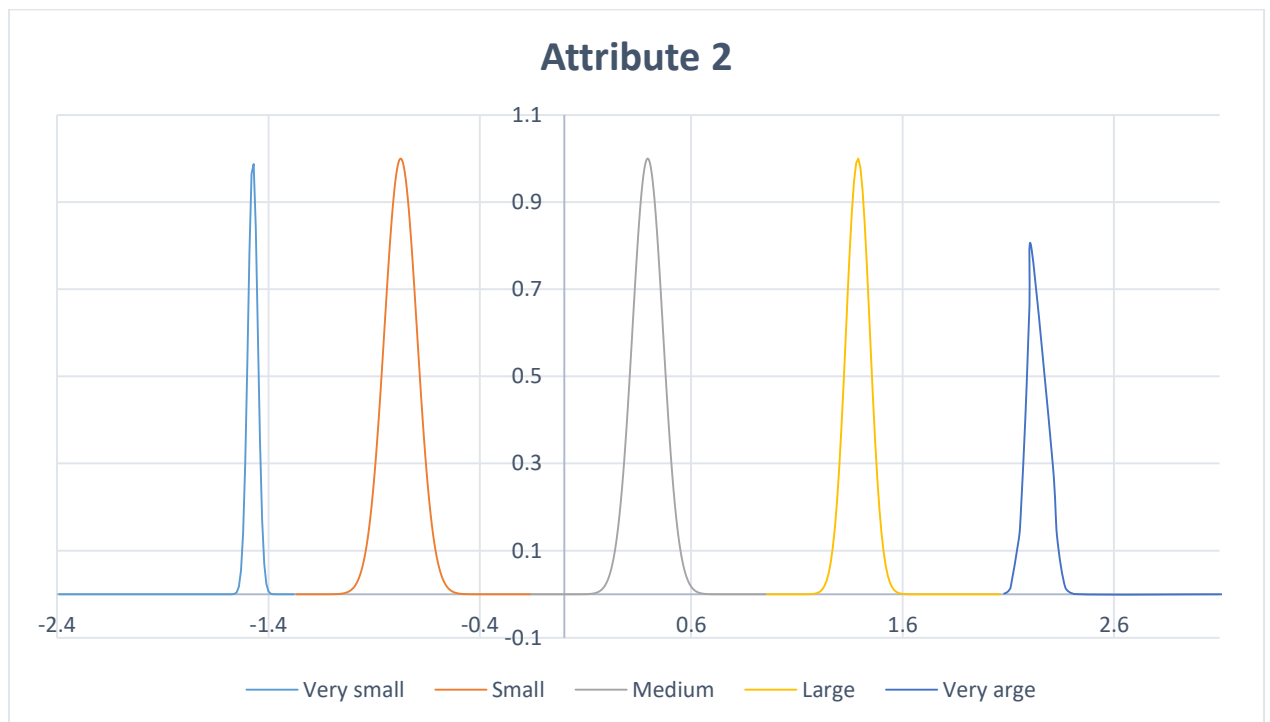
Very small: $f = e^{-\left(\frac{x+1.47377}{0.032943}\right)^2};$

Small $f = e^{-\left(\frac{x+0.77476}{0.108979}\right)^2};$

Medium $f = e^{-\left(\frac{x-0.393977}{0.102341}\right)^2};$

Large $f = e^{-\left(\frac{x-1.388358}{0.079547}\right)^2};$

Very large $f = e^{-\left(\frac{x-2.240526}{0.063172}\right)^2}.$



Rules:

- 1) If x_1 is small AND x_2 is very large THEN Class (-1)
- 2) If x_1 is large AND x_2 is small THEN Class (1)
- 3) If x_1 is very large AND x_2 is very large THEN Other

Rules validation:

Attribute 1	Attribute 2	Class 1	Class -1	Result
1.2	-1.65	1	-1	Good
0.0529	1.52	1	-1	Good
1.46	0.0373	1	-1	Good
-0.607	-1.6	1	-1	Good
-1.06	-0.549	Other	-1	Not Good
-1.39	0.862	1	-1	Good
0.527	0.51	1	-1	Good
1.15	-0.451	1	-1	Good
-0.171	0.0105	1	-1	Good
-1.63	0.524	1	-1	Good
2.2	-0.665	1	1	Not Good
0.826	1.42	1	-1	Good
-0.138	-0.0524	1	-1	Good
-0.754	1.19	1	-1	Good
0.0574	-0.134	-1	-1	Not Good
0.877	0.161	1	-1	Good
1.17	0.446	1	-1	Good
0.647	0.317	1	-1	Good
-1.73	-0.242	1	-1	Good
0.631	-0.674	1	-1	Good
Success rate		90%	95%	85%