

Report on Weather Australia dataset

Auto2Class

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1 Exploratory Data Analysis Part

1.1 DataTypes and Non-Null Count

Table 1: Dataset Columns Information

Column	Non-Null Count	Dtype
Date	145460	object
Location	145460	object
MinTemp	143975	float64
MaxTemp	144199	float64
Rainfall	142199	float64
Evaporation	82670	float64
Sunshine	75625	float64
WindGustDir	135134	object
WindGustSpeed	135197	float64
WindDir9am	134894	object
WindDir3pm	141232	object
WindSpeed9am	143693	float64
WindSpeed3pm	142398	float64
Humidity9am	142806	float64
Humidity3pm	140953	float64
Pressure9am	130395	float64
Pressure3pm	130432	float64
Cloud9am	89572	float64
Cloud3pm	86102	float64
Temp9am	143693	float64
Temp3pm	141851	float64
RainToday	142199	object
RainTomorrow	142193	object

1.2 Descriptive Statistics

Table 2: Dataset Descriptive Statistics

Statistic	count	mean	std	min	25%	50%	75%	max
MinTemp	143975.0	12.19	6.4	-8.5	7.6	12.0	16.9	33.9
MaxTemp	144199.0	23.22	7.12	-4.8	17.9	22.6	28.2	48.1
Rainfall	142199.0	2.36	8.48	0.0	0.0	0.0	0.8	371.0
Evaporation	82670.0	5.47	4.19	0.0	2.6	4.8	7.4	145.0
Sunshine	75625.0	7.61	3.79	0.0	4.8	8.4	10.6	14.5
WindGustSpeed	135197.0	40.04	13.61	6.0	31.0	39.0	48.0	135.0
WindSpeed9am	143693.0	14.04	8.92	0.0	7.0	13.0	19.0	130.0
WindSpeed3pm	142398.0	18.66	8.81	0.0	13.0	19.0	24.0	87.0
Humidity9am	142806.0	68.88	19.03	0.0	57.0	70.0	83.0	100.0
Humidity3pm	140953.0	51.54	20.8	0.0	37.0	52.0	66.0	100.0
Pressure9am	130395.0	1017.65	7.11	980.5	1012.9	1017.6	1022.4	1041.0
Pressure3pm	130432.0	1015.26	7.04	977.1	1010.4	1015.2	1020.0	1039.6
Cloud9am	89572.0	4.45	2.89	0.0	1.0	5.0	7.0	9.0
Cloud3pm	86102.0	4.51	2.72	0.0	2.0	5.0	7.0	9.0
Temp9am	143693.0	16.99	6.49	-7.2	12.3	16.7	21.6	40.2
Temp3pm	141851.0	21.68	6.94	-5.4	16.6	21.1	26.4	46.7

1.3 Histograms of Numerical columns

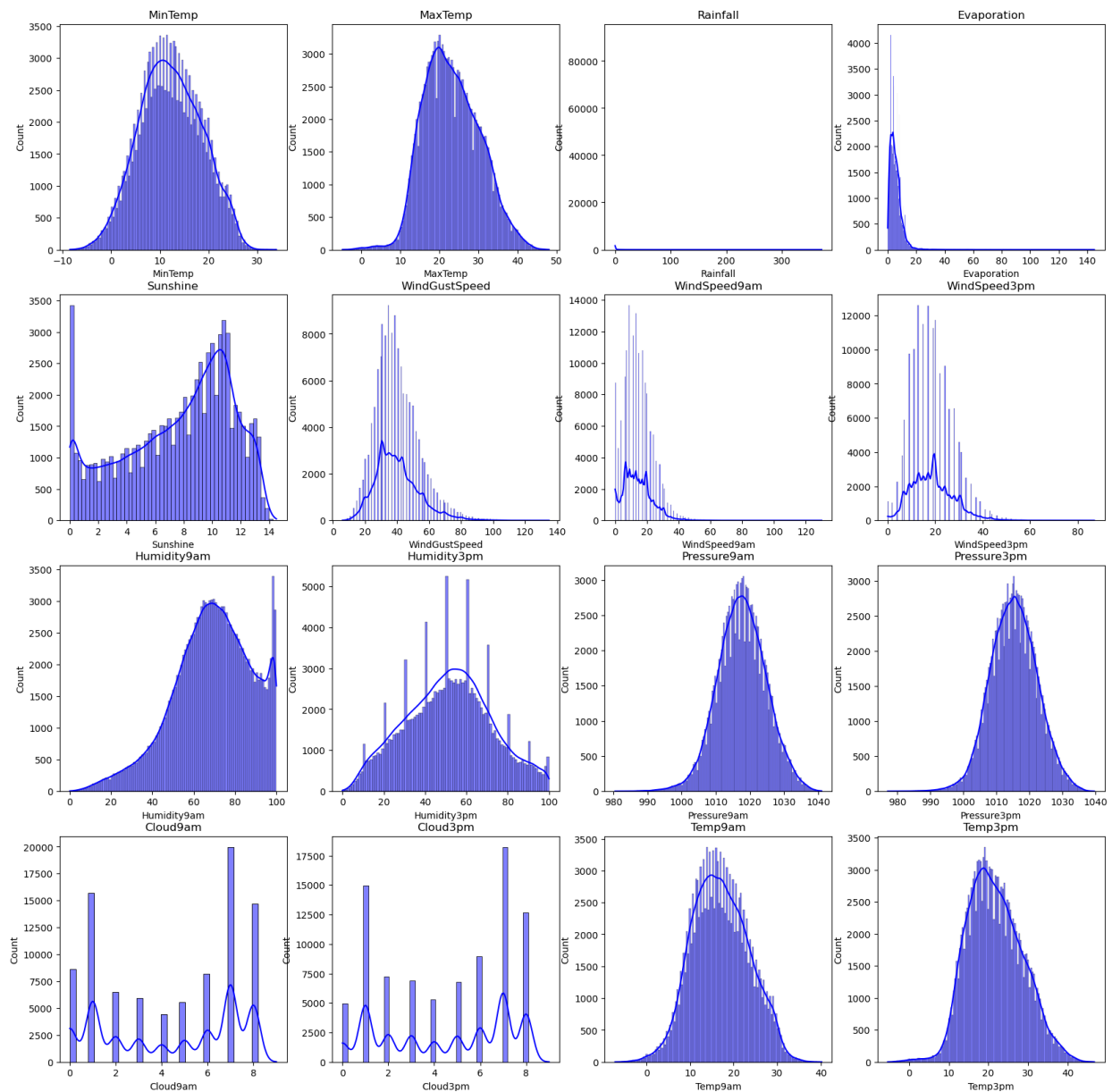


Figure 1: Histograms of Numerical columns

1.4 Bar Charts of Categorical columns

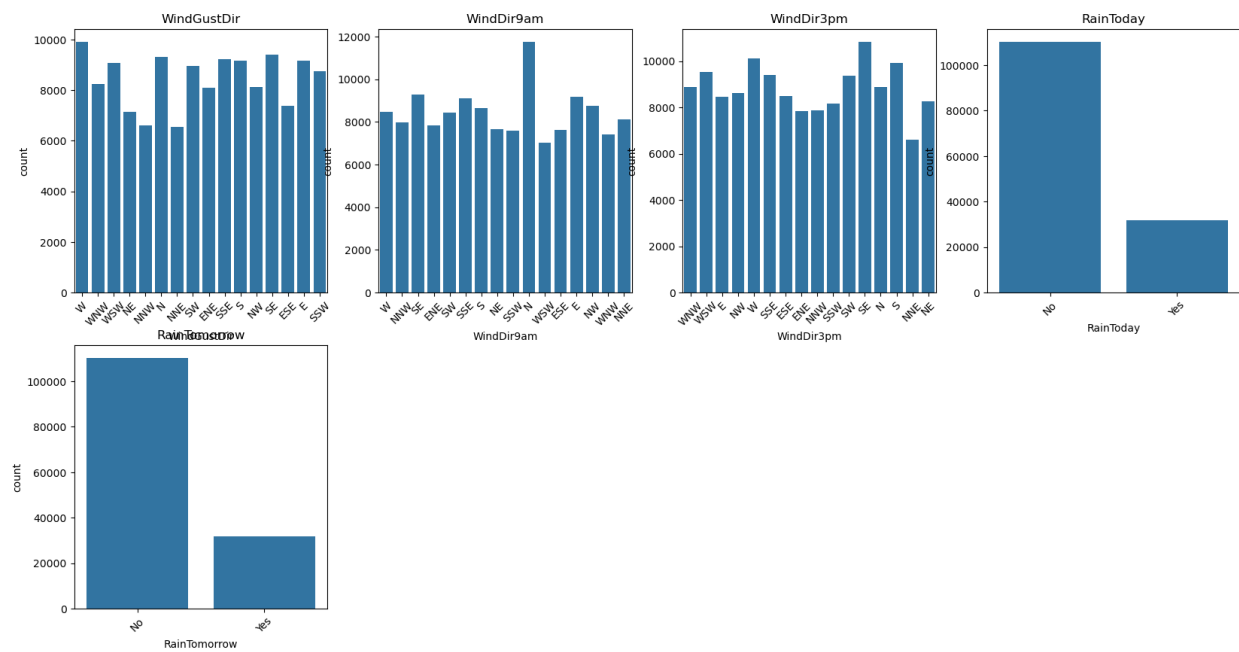


Figure 2: Bar Charts of Categorical columns