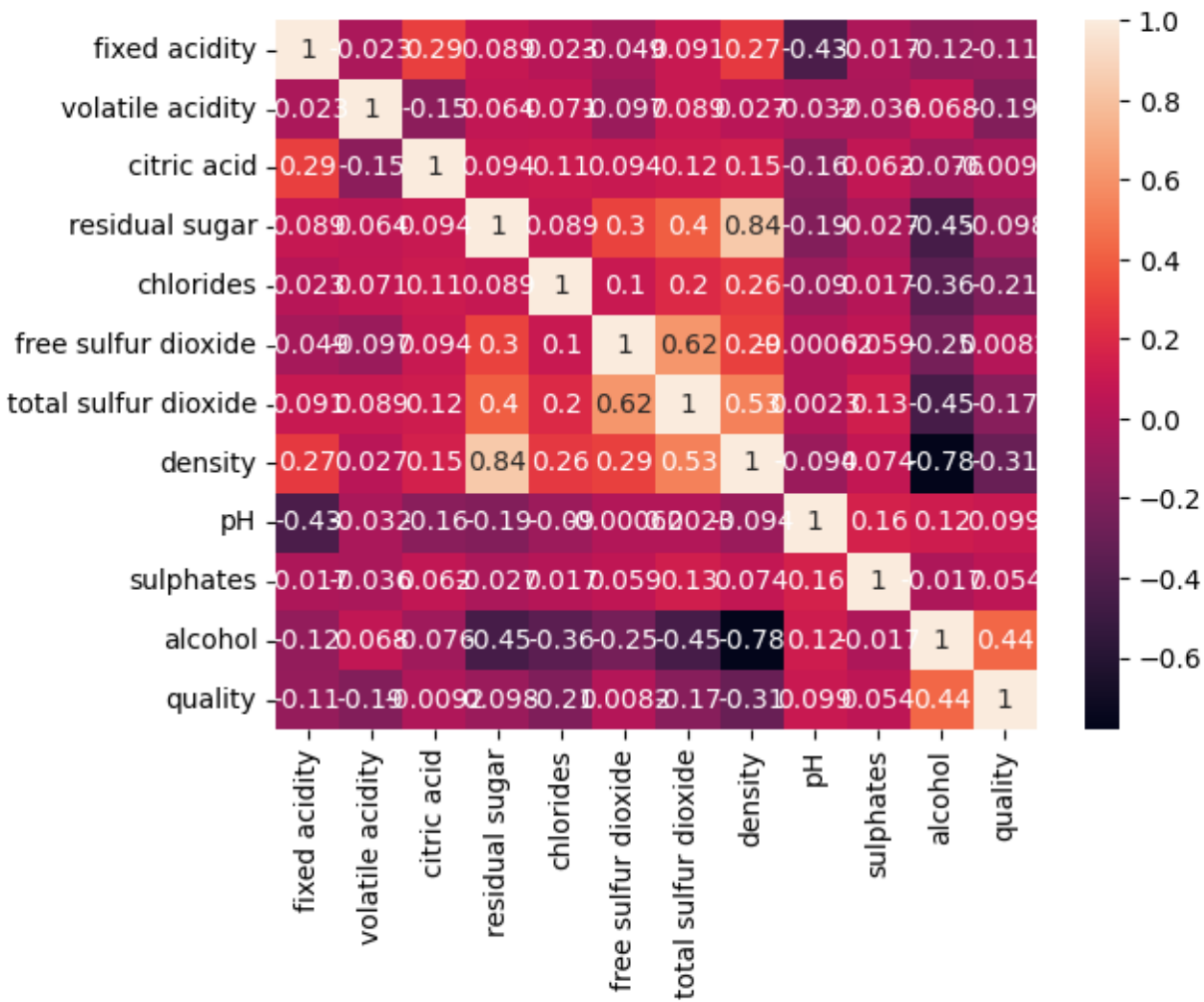
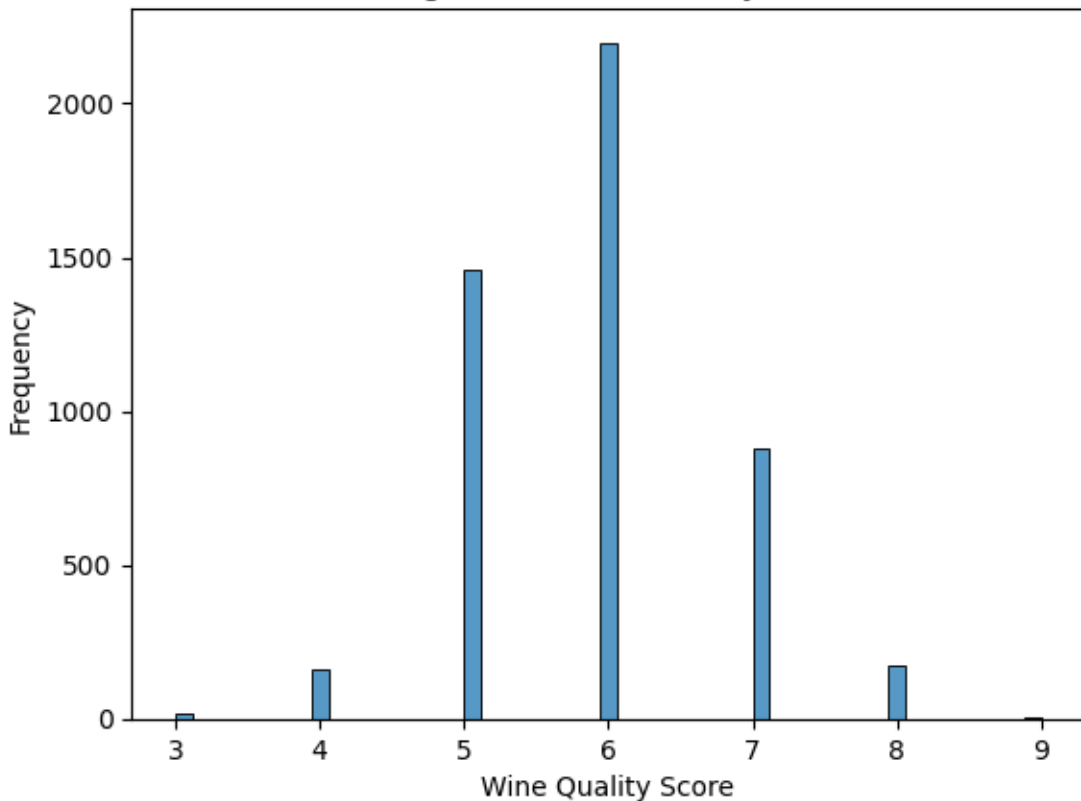


Github Repo <https://github.com/GRIYER26/cs131.git>

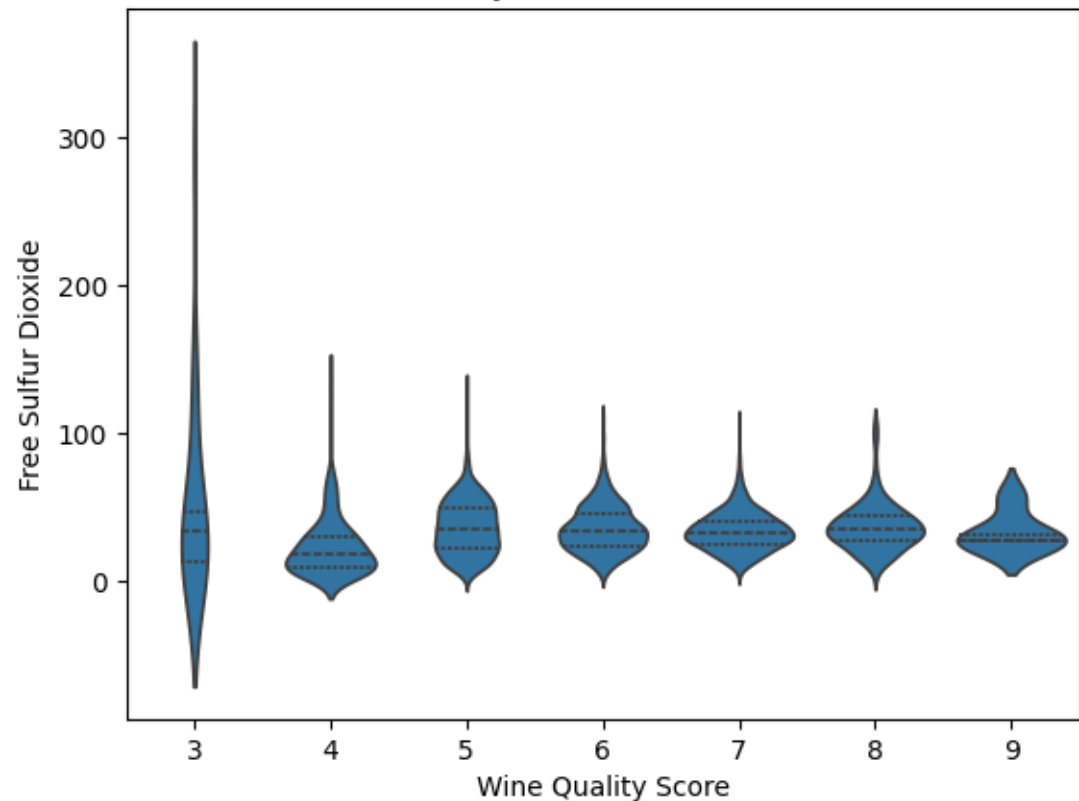
	fixed acidity	volatile acidity	citric acid	residual sugar	chlorides	free sulfur dioxide	total sulfur dioxide	density	pH	sulphates	alcohol	quality
count	4898.000000	4898.000000	4898.000000	4898.000000	4898.000000	4898.000000	4898.000000	4898.000000	4898.000000	4898.000000	4898.000000	4898.000000
mean	6.854788	0.278241	0.334192	6.391415	0.045772	35.308085	138.360657	0.994027	3.188267	0.489847	10.514267	5.877909
std	0.843868	0.100795	0.121020	5.072058	0.021848	17.007137	42.498065	0.002991	0.151001	0.114126	1.230621	0.885639
min	3.800000	0.080000	0.000000	0.600000	0.009000	2.000000	9.000000	0.987110	2.720000	0.220000	8.000000	3.000000
25%	6.300000	0.210000	0.270000	1.700000	0.036000	23.000000	108.000000	0.991723	3.090000	0.410000	9.500000	5.000000
50%	6.800000	0.260000	0.320000	5.200000	0.043000	34.000000	134.000000	0.993740	3.180000	0.470000	10.400000	6.000000
75%	7.300000	0.320000	0.390000	9.900000	0.050000	46.000000	167.000000	0.996100	3.280000	0.550000	11.400000	6.000000
max	14.200000	1.100000	1.660000	65.800000	0.346000	289.000000	440.000000	1.038980	3.820000	1.080000	14.200000	9.000000



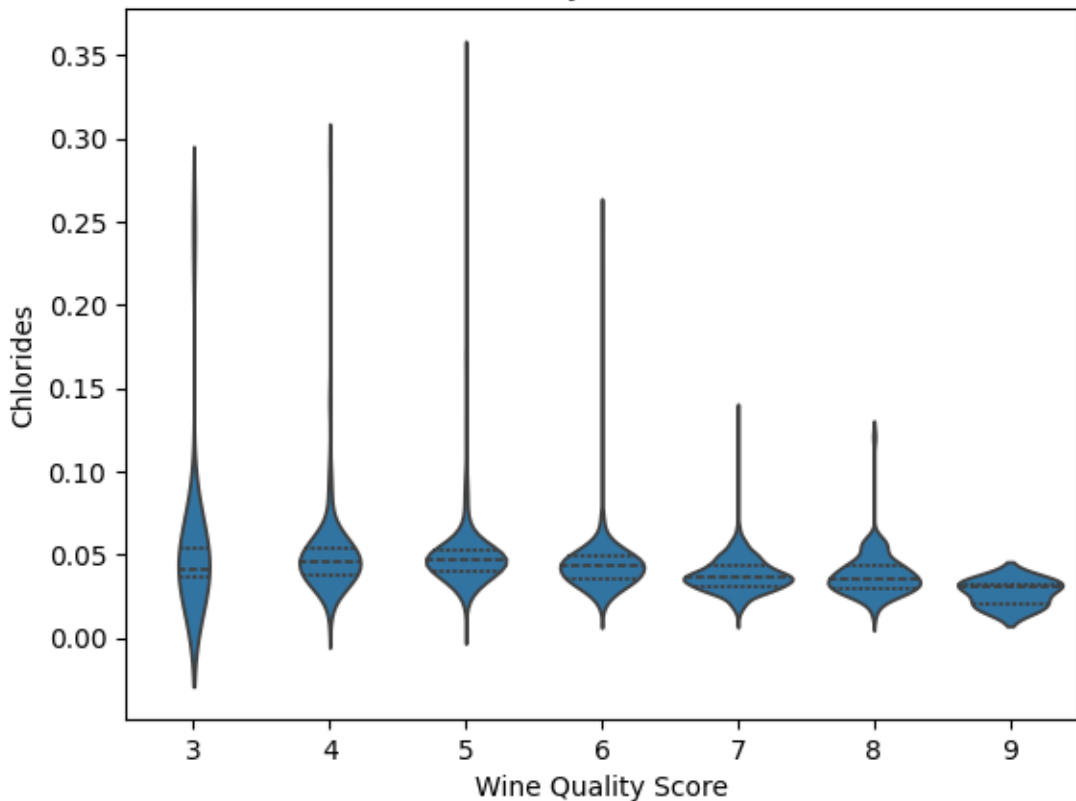
Histogram of Wine Quality Scores



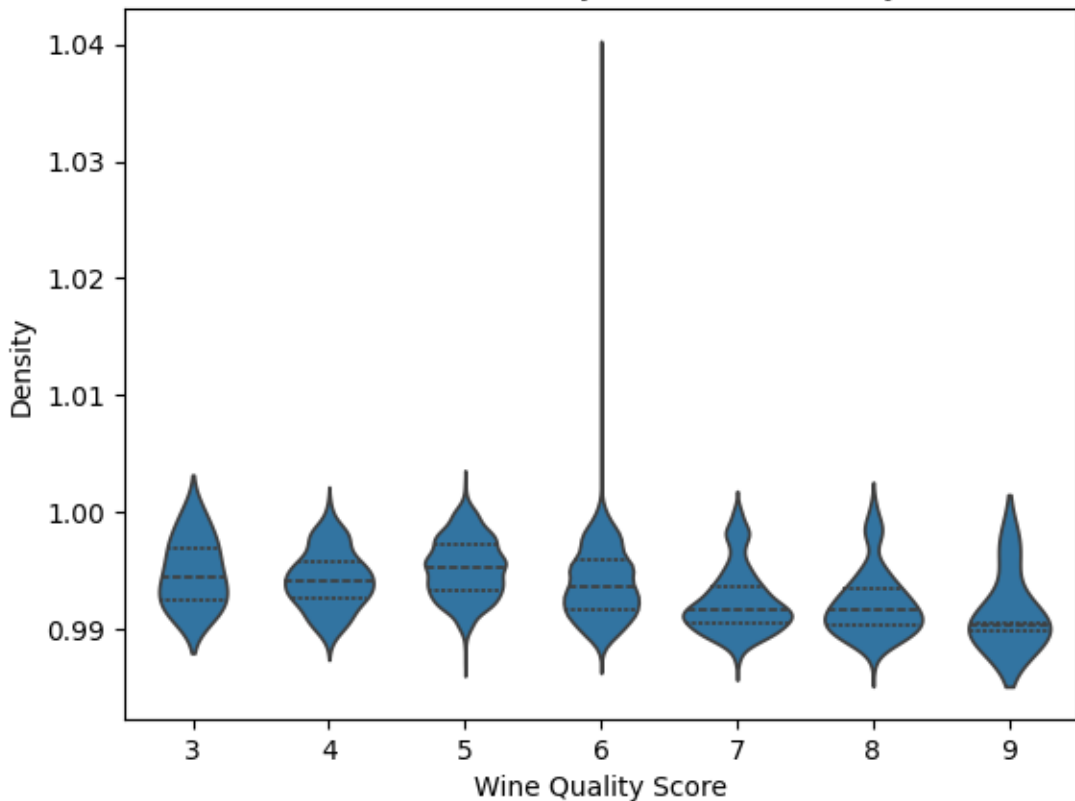
Violin Plot of Wine Quality Scores vs. Free Sulfur Dioxide Values



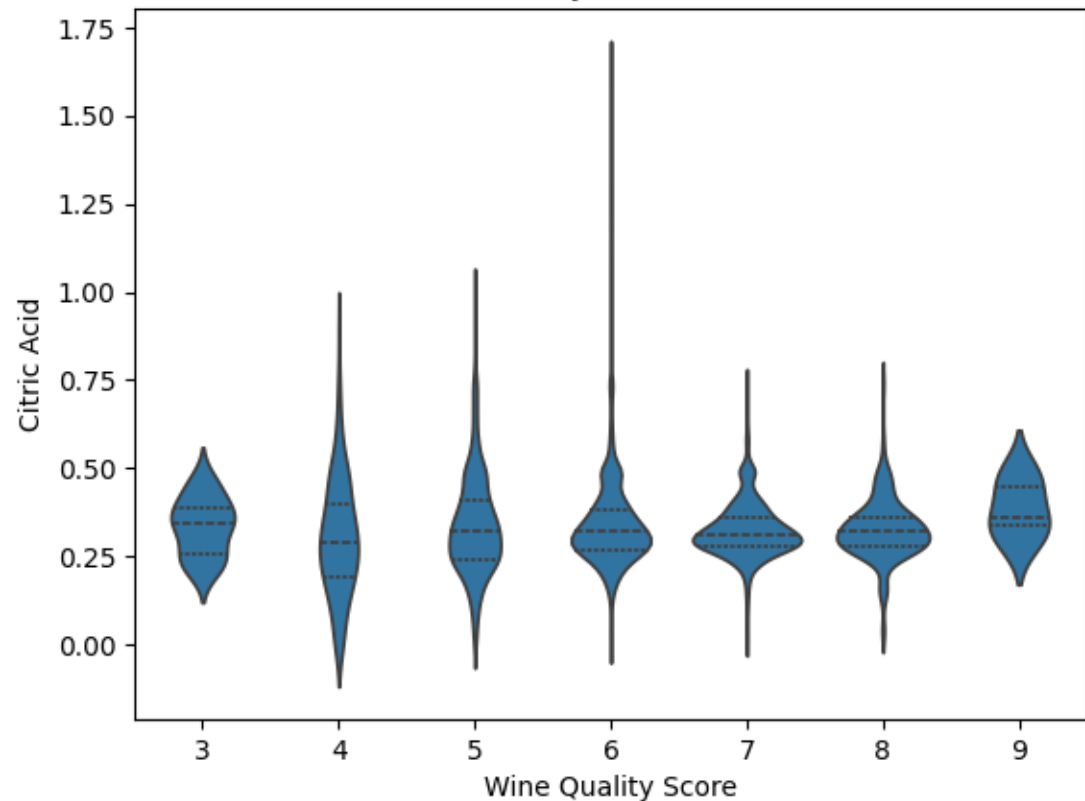
Violin Plot of Wine Quality Scores vs. Chlorides Values



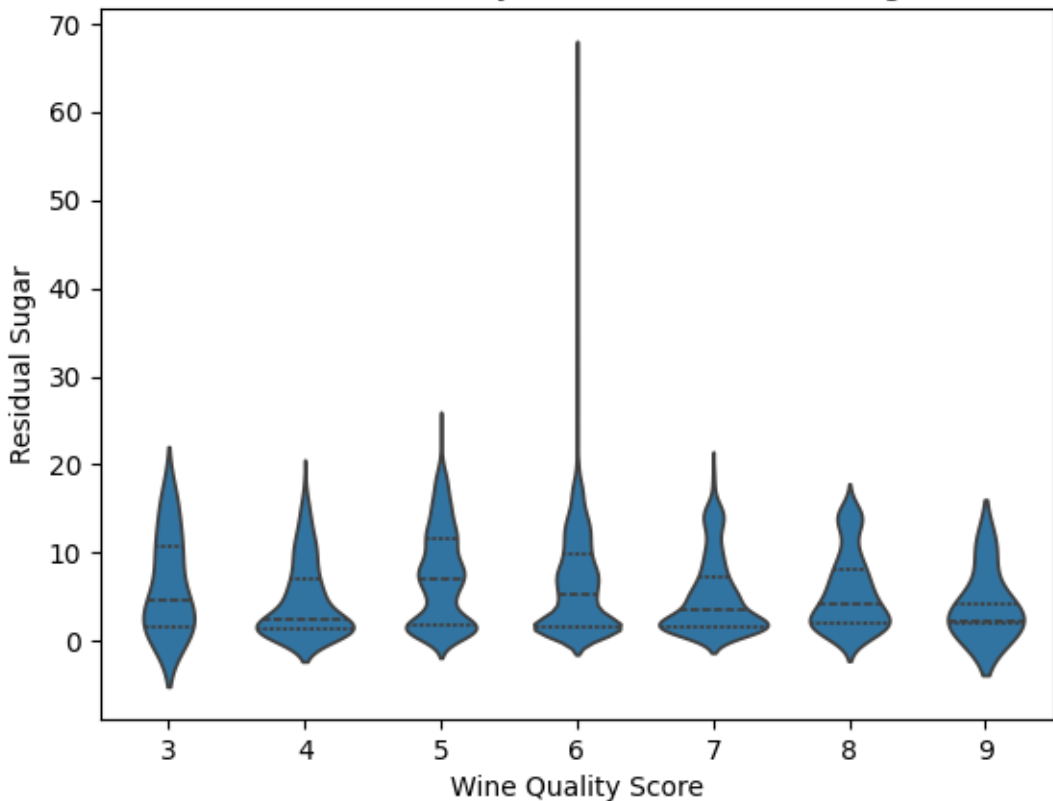
Violin Plot of Wine Quality Scores vs. Density Values



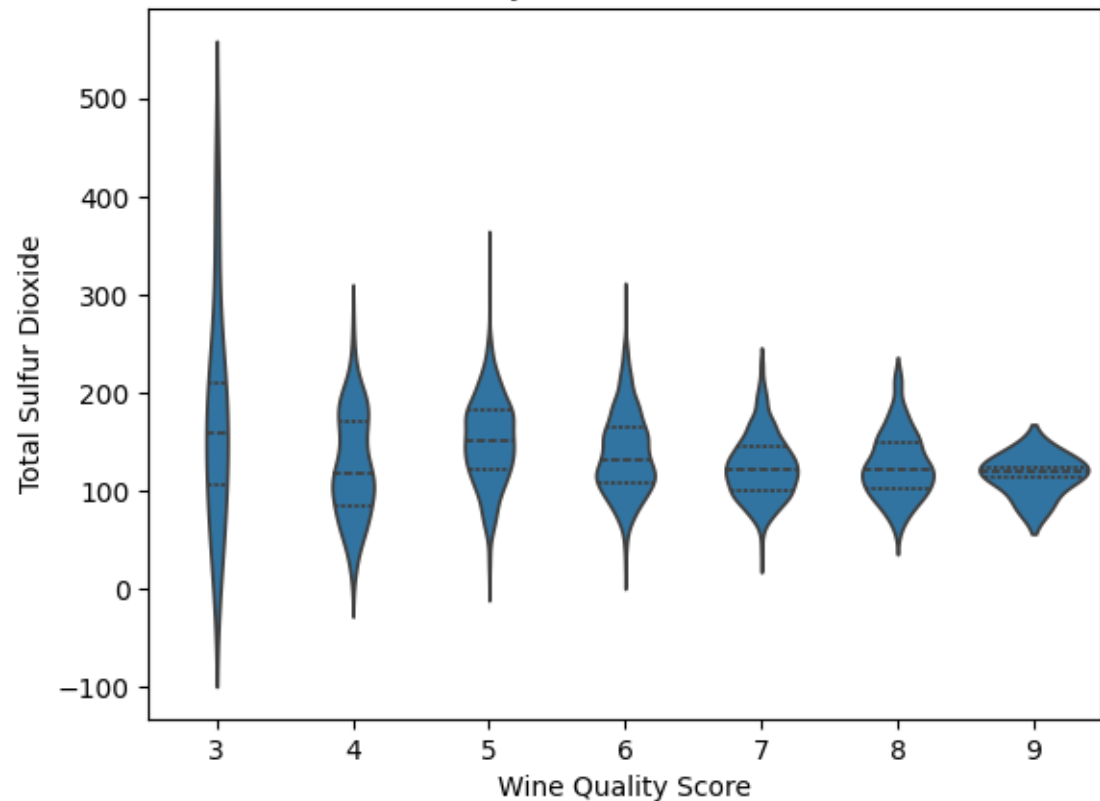
Violin Plot of Wine Quality Scores vs. Citric Acid Values



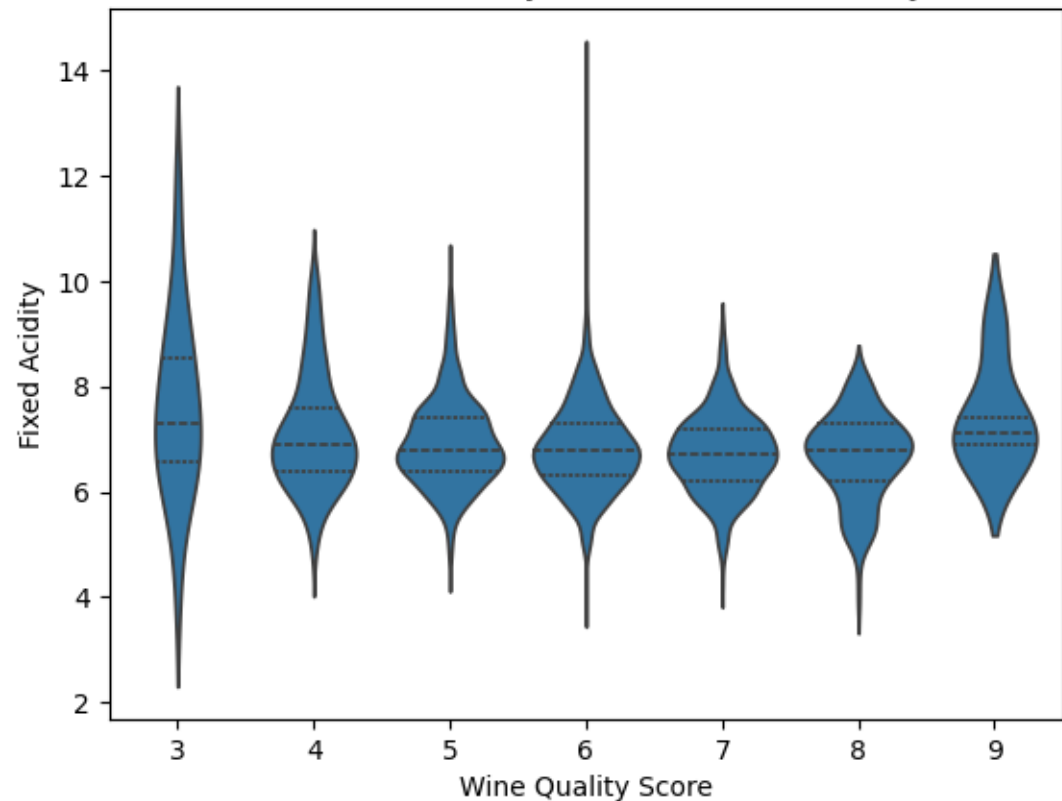
Violin Plot of Wine Quality Scores vs. Residual Sugar Values



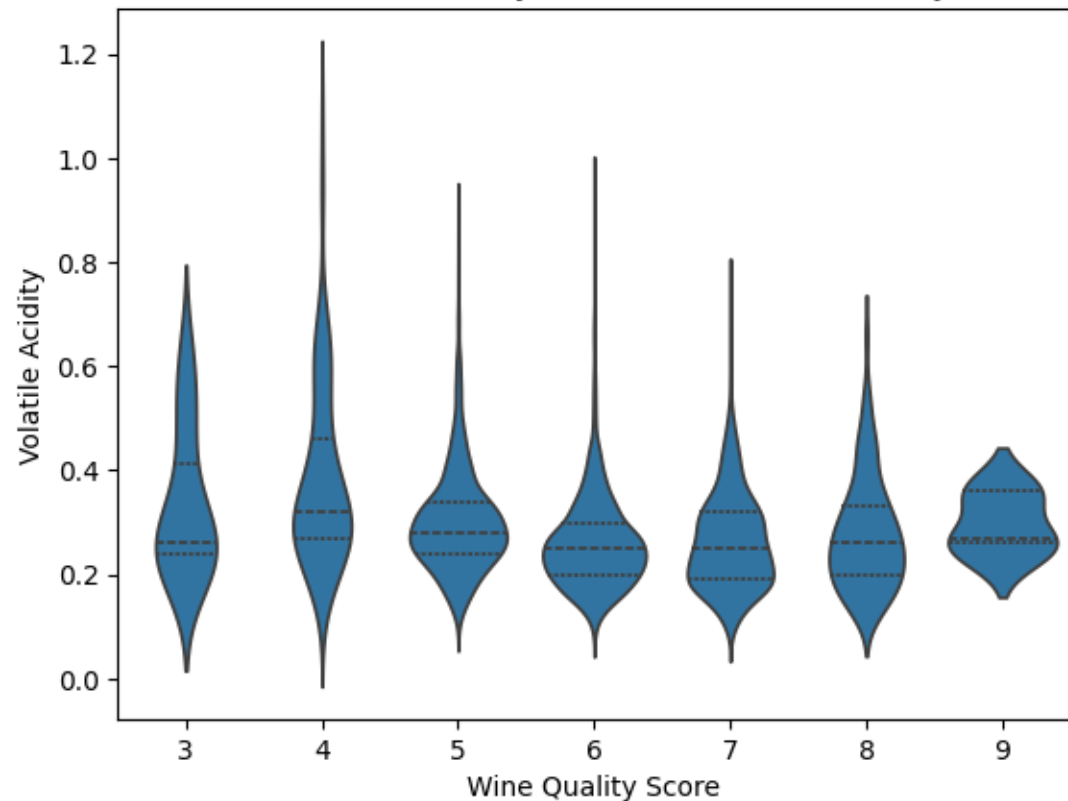
Violin Plot of Wine Quality Scores vs. Total Sulfur Dioxide Values



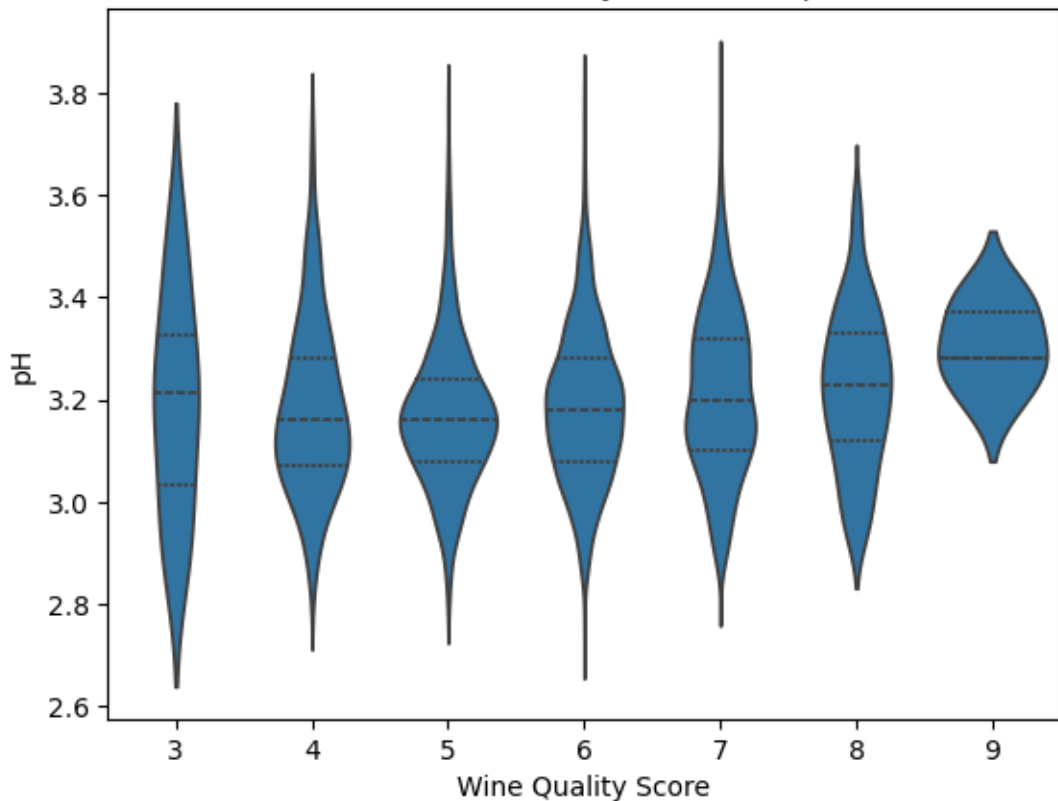
Violin Plot of Wine Quality Scores vs. Fixed Acidity Values



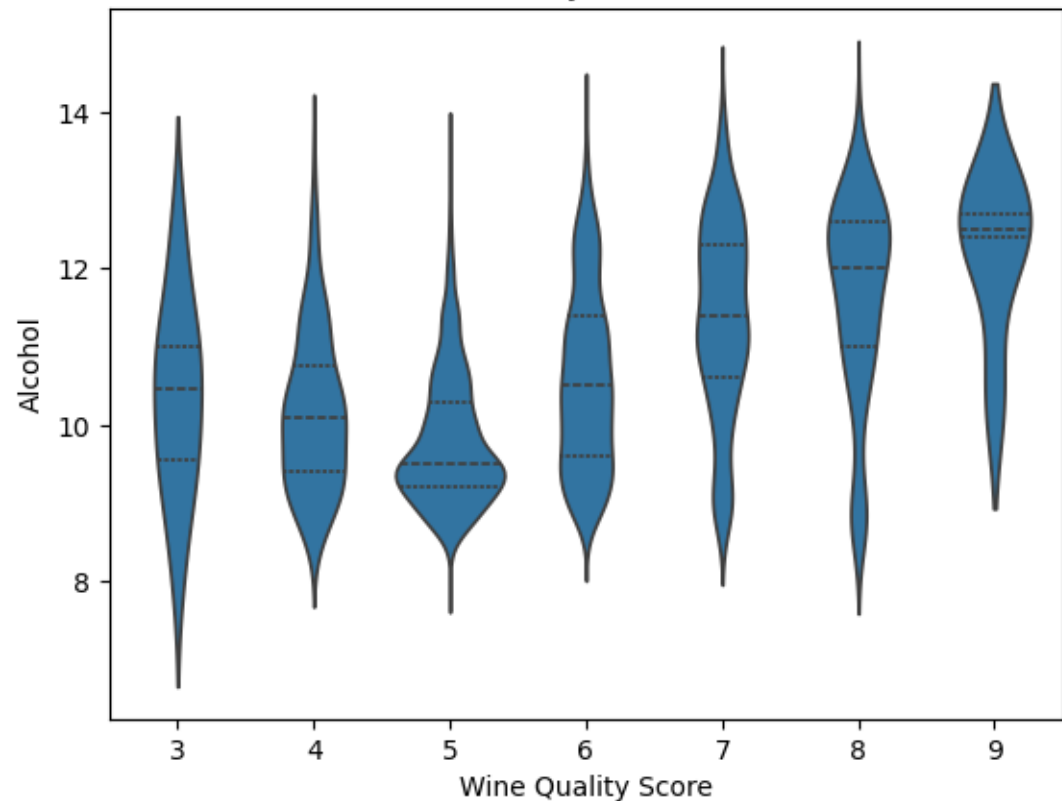
Violin Plot of Wine Quality Scores vs. Volatile Acidity Values



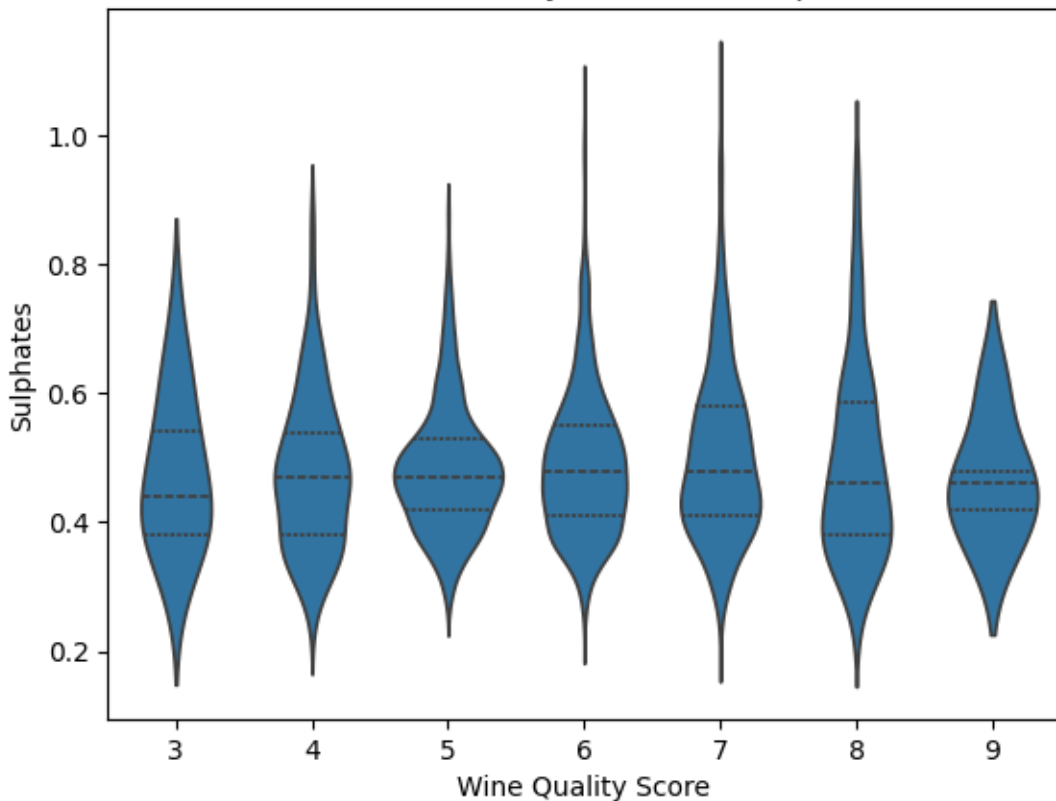
Violin Plot of Wine Quality Scores vs. pH Values



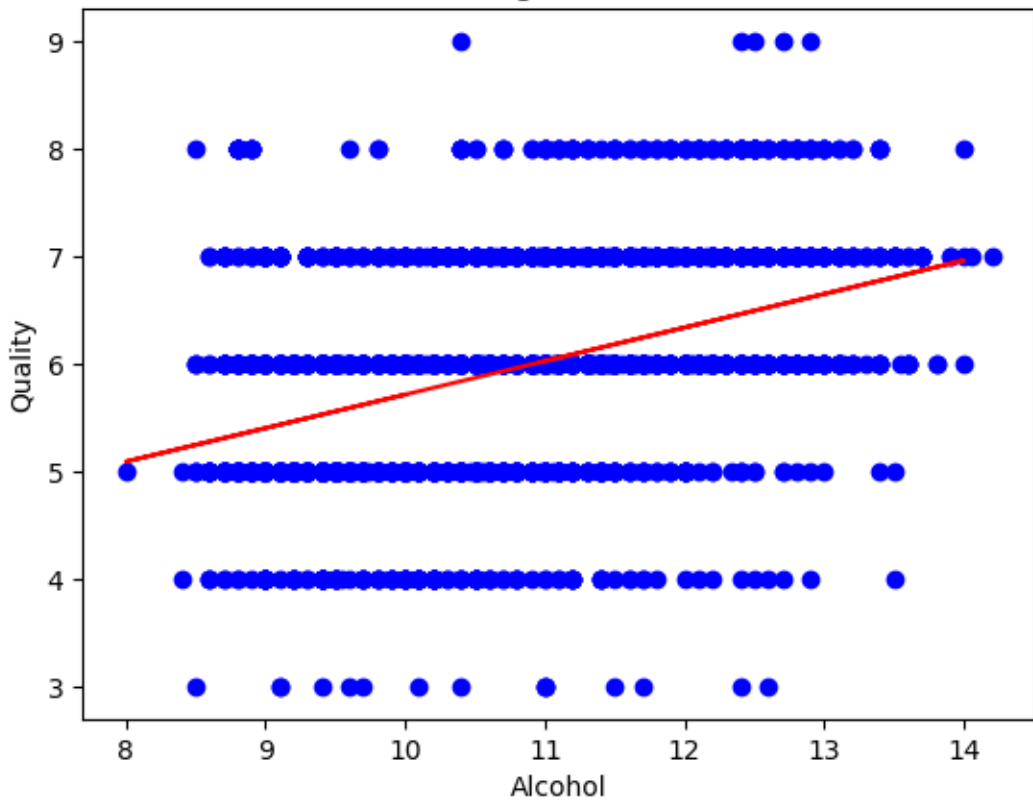
Violin Plot of Wine Quality Scores vs. Alcohol Values



Violin Plot of Wine Quality Scores vs. Sulphates Values



Linear Regression Model



Mean squared error: 0.6177518759003805

R-squared: 0.20235854927544705

b0 = 2.594634883462978

b1 = 0.3118068153786768

Mean squared error: 0.5855587709290658

R-squared: 0.24392629832553359

b0 = -37.49257502316353

b1 = -2.128325298480065

b2 = 0.39908482916666943

b3 = 40.00172502326192