

# Assignment3

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## 1 Introduction

I used a data-set describing the factors may lead to a forest fire. Factors including, the temperature, the rain level, the relative humidity(RH), the wind, and some calculated index.

## 2 Picture One

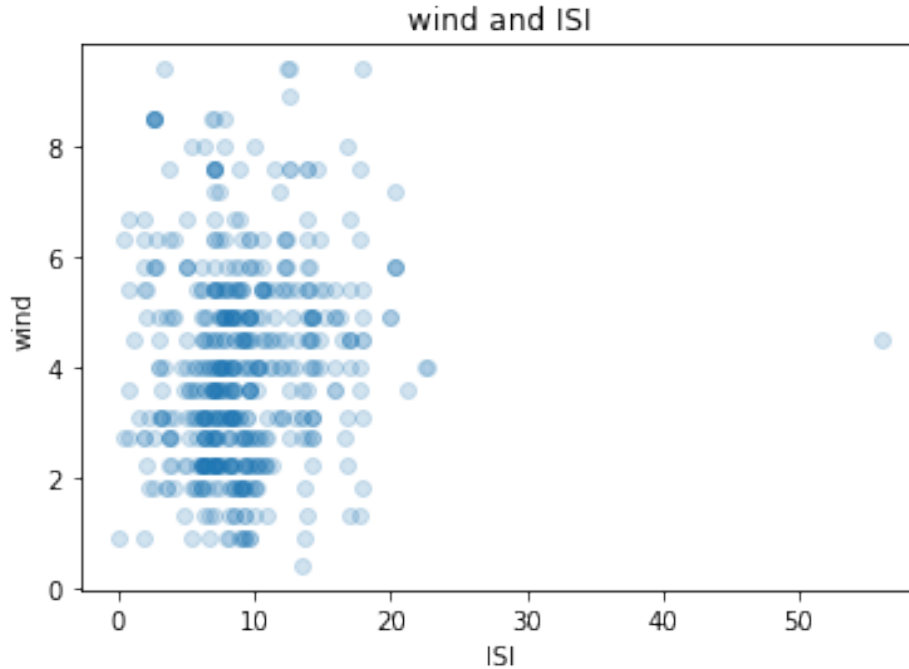


Figure 1: The relationship of Wind and ISI

The Initial Spread Index (ISI) is analogous to the NFDRS Spread Component (SC). It integrates fuel moisture for fine dead fuels and surface windspeed to estimate a spread potential.

In studying the relationship of ISI and wind, we can find that there is not a very obvious relationship between the ISI and wind. But as ISI increases, the wind level seems to getting large as well.

## 3 Picture Two

This is a histogram about the temperature distribution. From the picture we can see, that the temperature follows a normal distribution. And the mean of the temperature is around 20 Celsius. Which is a good sign, because the higher the temperature is, the more possible a forest fire may happen.

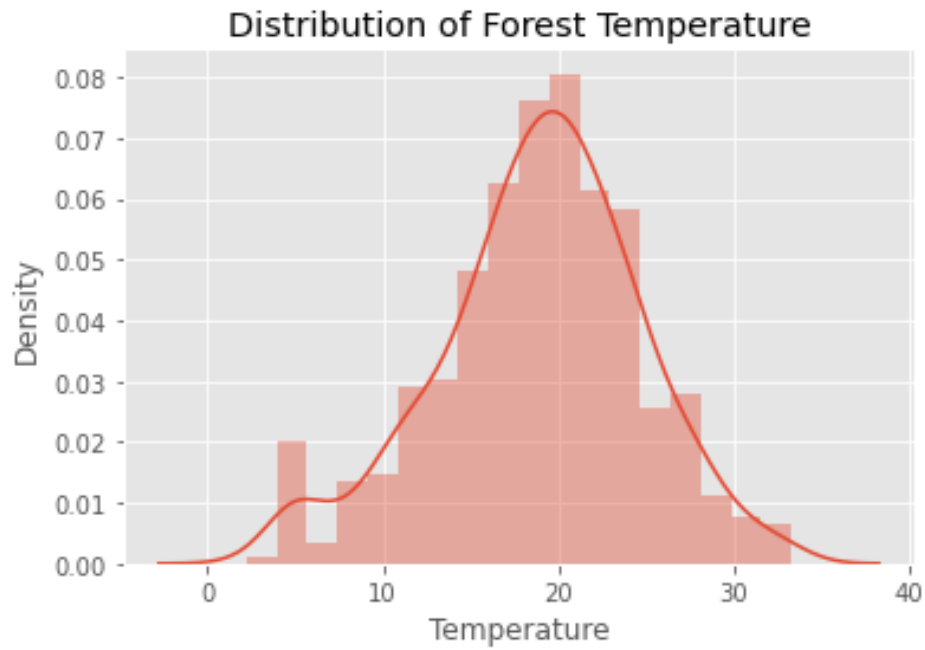


Figure 2: This frog was uploaded via the file-tree menu.

#### 4 Picture Three

the Relationship of Temperature, Wind, and Relative Humidity

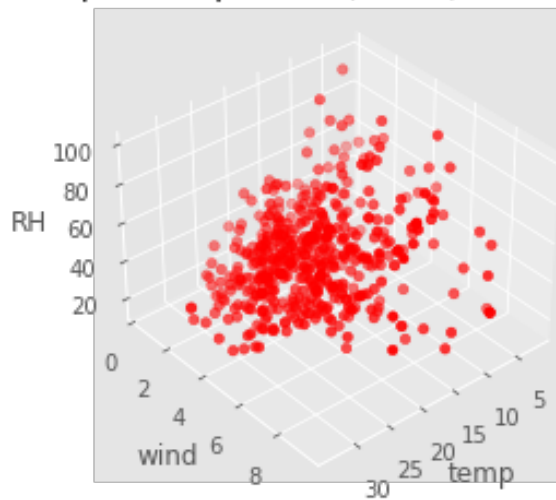


Figure 3: The relationship of Temp, Wind, and Relative Humidity

Here we study the relationships between three factors, wind, temperature, and the relative humidity. From the 3D chart, we can see that the bigger the wind is, the lower temperature is, and the lower the relative humidity. Which is reasonable. However, the relationship of temperature and relative humidity is not clear in this chart, and still yet to be found.