Lab8: Fit a polynomial to data and plot it

density\_water.dat

density\_air.dat

Step 1: write code to read the density-vs-temperature of both water and air data into two lists/arrays. (hint: for each row, you need to detect if first character is #, if so skip it, otherwise parse the data and save it to lists below).

Water\_temp=[]  
 water\_density=[]

Air\_temp=[]  
 air\_density=[]

Step 2 Read the description below to generate a polynomial function that fit the data.

Step 3: plot the results of the raw data and the fit polynomial function

(hint: after you create the fit function in step 2, for each temperature value in water\_temp or air\_temp, calculate the value of density values and save to water\_density\_fit[] and air\_density\_fit[], and then you can plot them together).

Your output should be like these two figures

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