DATA EXERCISE

You've received a text file containing stock price data sampled at 1 minute intervals for approximately one year.

Please send us a 2-4 page report that answers the prompt below. Give the units of any numbers estimated. In addition, please include any code you wrote to help analyze the data.

For each stock provide:

1. Your best estimate of the volatility (measured in annualized percent return) over the next month following the end of the samples.

2. Your confidence in that estimation.
(Note that, like most real data, there may be errors or biases in the data presented.)

Do your best to clean the data. Let us know what data you eliminated/ corrected and why. Consider the trade-offs when thinking about the frequency of sampling, and consider the relative importance of more and less recent samples.

If you do any fitting to make your prediction, report the values of the parameters fitted. If you consult any literature in deciding on your modeling approach, please provide bibliographic references. If you use fitting algorithms that you did not write yourself, be prepared to discuss the specifics of the model and the meaning of the parameters.

Thank you for taking the time to work on this exercise. We are excited to see your work and discuss your results.