

Homework: Files and Visualization

DOW SELECTION USING NUMPY (DUE ON TUESDAY, 8TH AT 6:00 PM)

The Dow Jones Industrial Average from the beginning of 2008 (dates have been removed for simplifying the exercise) are stored in the “dow.csv” file with each row holding its daily performance. The file contains the following column (OPEN, HIGH, LOW, CLOSE, VOLUME, ADJ_CLOSE). The file has the following structure:

OPEN	HIGH	LOW	CLOSE	VOLUME	ADJ_CLOSE
13261.82,	13338.23,	12969.42,	13043.96,	3452650000,	13043.96
13044.12,	13197.43,	12968.44,	13056.72,	3429500000,	13056.72
13046.56,	13049.65,	12740.51,	12800.18,	4166000000,	12800.18
12801.15,	12984.95,	12640.44,	12827.49,	4221260000,	12827.49
12820.9,	12998.11,	12511.03,	12589.07,	4705390000,	12589.07

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1. Load the data from the file to a 2-D array “i.e., dow”
2. Create a "mask" array that indicates which rows have a volume greater than 5.5 billion.
3. How many are there? **Hint: use sum.**
4. Find the index of every row (or day) where the volume is greater than 5.5 billion. **Hint: look at the where() command.**
5. Plot the adjusted close for ***every*** day in 2008.
6. Now, over-plot this plot with a 'red dot' marker for every day where the dow was greater than 5.5 billion.