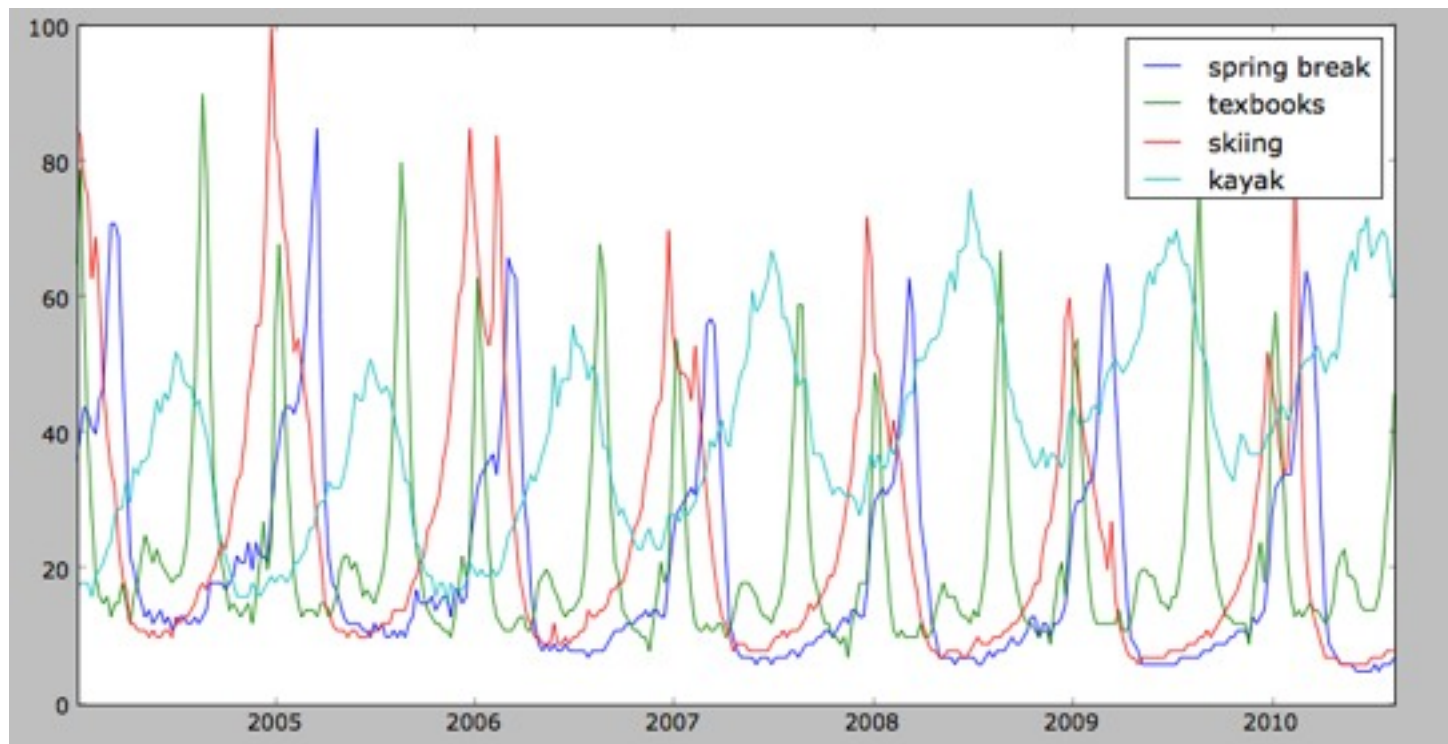


# Homework #1

Google Trends is pretty awesome, except that on the site you cannot do more than overlay plots. Here we'll play with search term data downloaded from Google and draw our own conclusions.

1. Use `trends.csv` file and `matplotlib.pyplot.csv2rec` to import the data and reproduce this plot:



# Homework #1

2. determine in which week of each year (for all five search trends including "global warming") that search reached its peak and its minimum. Are there any trends you can spot with any of the terms?
3. which term has the largest scatter about its median value?  
which term has the smallest scatter?
4. Determine the time lag, in units of weeks, that maximizes the cross-correlation between "skiing" and "spring break". Do this also for "skiing" and "global warming"
5. Download trend data on two terms of your choosing and redo the questions above

<http://www.google.com/insights/search/#>

# Hints:

1. you might start your script with:

```
import matplotlib  
from matplotlib.pyplot import csv2rec, plot, legend
```

2. numpy has tools for cross-correlation

```
result = numpy.correlate(a['spring_break'], a['spring_break'], mode='full')  
plot(arange(result.size) - result.size/2, result)
```

# BTW...Python jobs are in growing demand...



**what:** job title, keywords or company

[Find Trends](#)[Find Jobs](#)

## Job Trends

### Job Trends

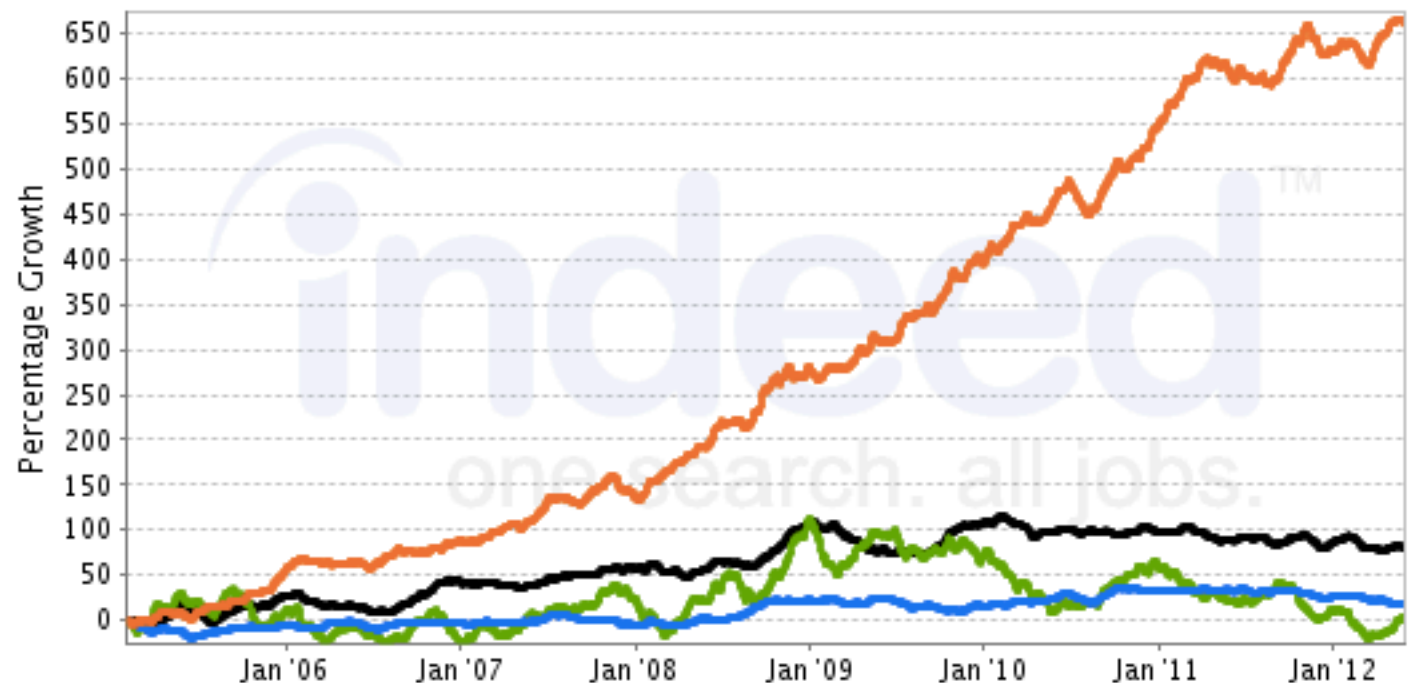
[Job Postings Per Capita](#)[Job Market Competition](#)[Industry Employment Trends](#)

## python, java, IDL, matlab Job Trends

Scale: [Absolute](#) - [Relative](#)

Job Trends from Indeed.com

— python — java — IDL — matlab



Indeed.com searches millions of jobs from thousands of job sites.

This job trends graph shows relative growth for jobs we find matching your search terms.