

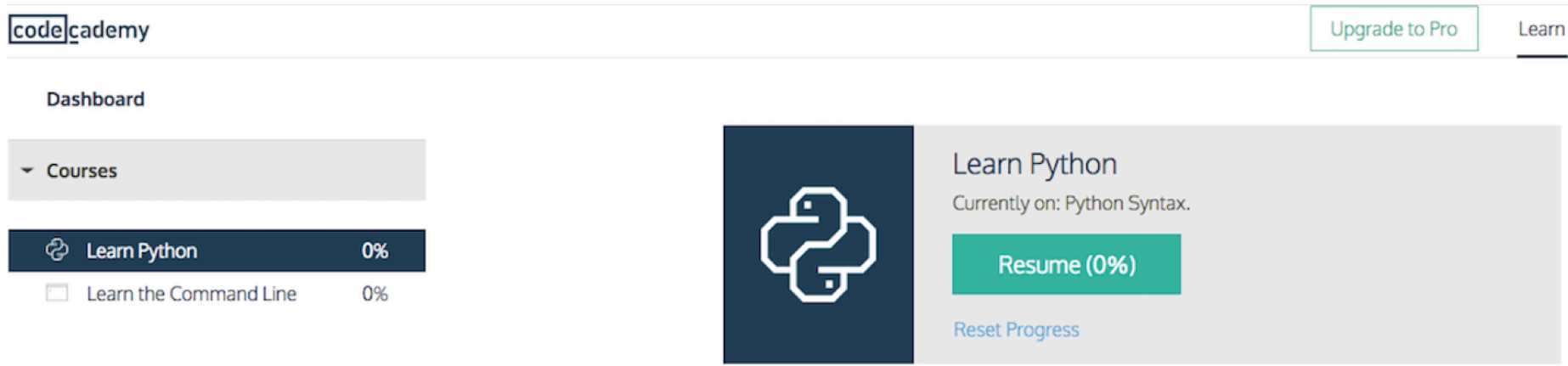
Install Anaconda

- Install anaconda version **2.7** from:
<https://www.anaconda.com/download/>

It will directly install a lot of useful tools related to python usage to your computer. If your computer refuses to install it, then download python 2.7 here instead:

<https://www.python.org/downloads/release/python-2712/>

If you have never programmed



Codecademy.com

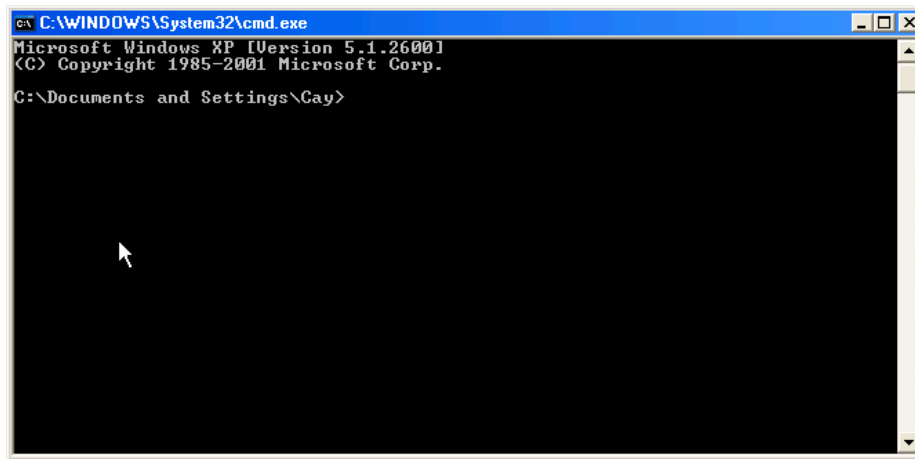
These are self-contained tutorials to get you familiar with python!



You need:

1. Windows Command Prompt

It will read python code if you type:
ipython

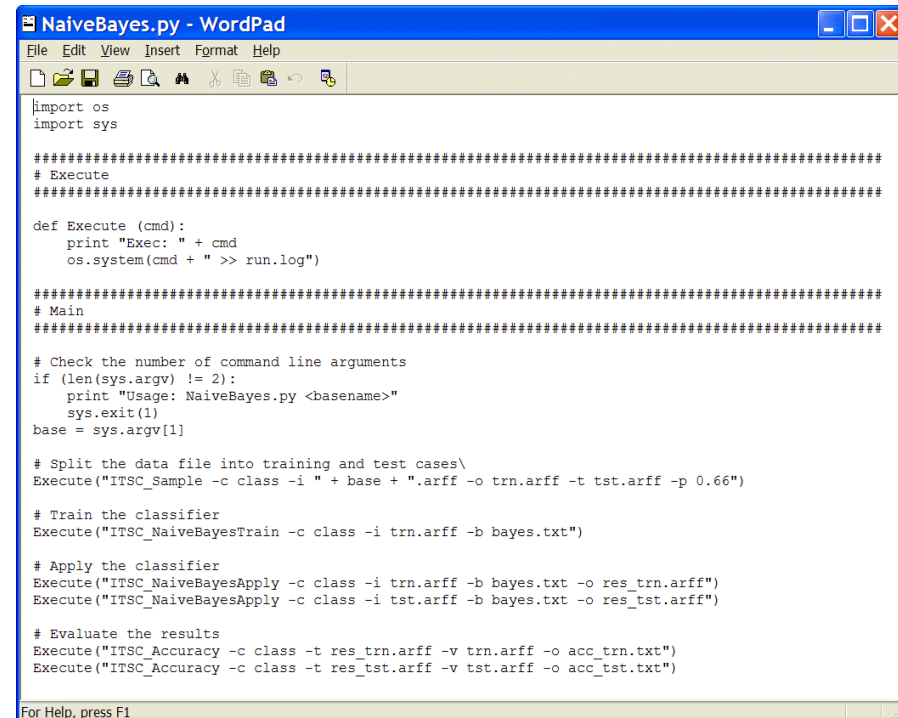


```
C:\WINDOWS\System32\cmd.exe
Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.

C:\Documents and Settings\Cay>
```

* If you opened ipython directly from Anaconda no need of starting ipython from the terminal, it is the same thing.

2. A Text editor. You can open scripts there. For example *wordpad*. All the scripts are text files that can be ran bit by bit or at once. Today we want to run them bit by bit.



```
NaiveBayes.py - WordPad
File Edit View Insert Format Help

import os
import sys

#####
# Execute
#####

def Execute (cmd):
    print "Exec: " + cmd
    os.system(cmd + " >> run.log")

#####
# Main
#####

# Check the number of command line arguments
if (len(sys.argv) != 2):
    print "Usage: NaiveBayes.py <basename>"
    sys.exit(1)
base = sys.argv[1]

# Split the data file into training and test cases\
Execute("ITSC_Sample -c class -i " + base + ".arff -o trn.arff -t tst.arff -p 0.66")

# Train the classifier
Execute("ITSC_NaiveBayesTrain -c class -i trn.arff -b bayes.txt")

# Apply the classifier
Execute("ITSC_NaiveBayesApply -c class -i trn.arff -b bayes.txt -o res_trn.arff")
Execute("ITSC_NaiveBayesApply -c class -i tst.arff -b bayes.txt -o res_tst.arff")

# Evaluate the results
Execute("ITSC_Accuracy -c class -t res_trn.arff -v trn.arff -o acc_trn.txt")
Execute("ITSC_Accuracy -c class -t res_tst.arff -v tst.arff -o acc_tst.txt")

For Help, press F1
```



You need:



1. Terminal (in Applications/Utilities)

It will read python code if you type:
ipython

```
Terminal — bash — 80x24
Last login: Fri Jan 30 19:47:33 on ttys000
Macintosh:~ amitbhawani$ defaults write com.apple.dashboard devmode YES
Macintosh:~ amitbhawani$
```

2. A Text editor. You can open scripts there.
For example *TextEdit*. All the scripts are
text files that can be ran bit by bit or at once.
Today we want to run them bit by bit.

```
ubiquitous_C63CFFE0-FC5F-4BC0-B628-7CF7680AB20D.mailsignature — Edited
Content-Transfer-Encoding: 7bit
Content-Type: text/html;
  charset=us-ascii
Message-Id: <A9B62A79-4847-4310-B5C1-4DF48788E499@nyc.rr.com>
Mime-Version: 1.0 (Mac OS X Mail 8.0 \{1955.2\})

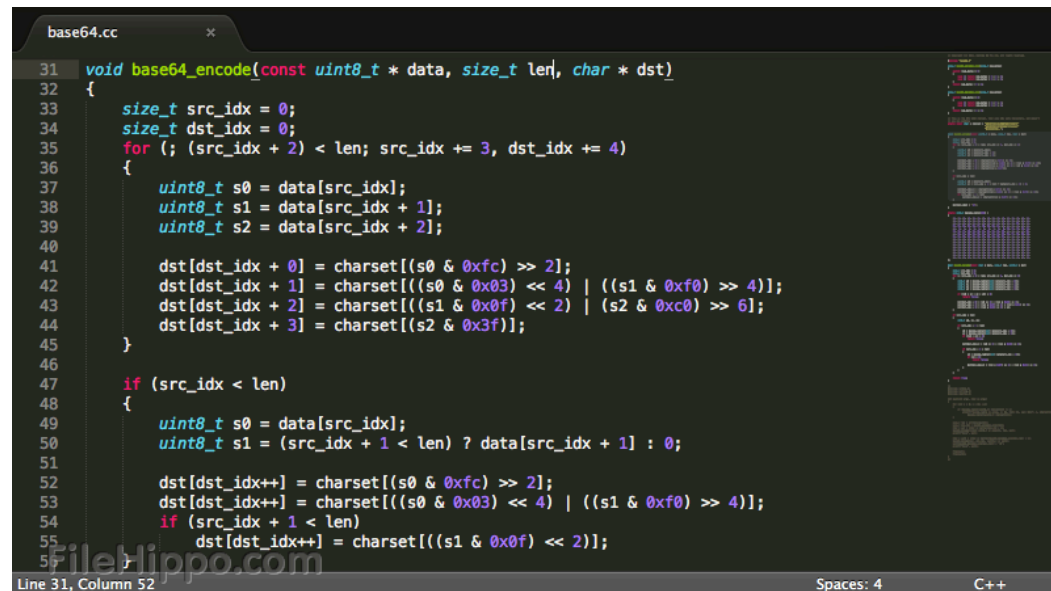
<body style="color: rgb(0, 0, 0); letter-spacing: normal; orphans: auto; text-align:
start; text-indent: 0px; text-transform: none; white-space: normal; widows: auto;
word-spacing: 0px; -webkit-text-stroke-width: 0px; word-wrap: break-word; -webkit-
nbsp-mode: space; -webkit-line-break: after-white-space;">This is a temporary
placeholder. It will be overwritten later...</body>
```

* If you opened ipython directly
from Anaconda no need of starting
ipython from the terminal, it is the
same thing.

Extra tips to get started

Sublime text is a great looking and very helpful text editor for windows, OS X or linux

<https://www.sublimetext.com/>



```
base64.cc
31 void base64_encode(const uint8_t * data, size_t len, char * dst)
32 {
33     size_t src_idx = 0;
34     size_t dst_idx = 0;
35     for (; (src_idx + 2) < len; src_idx += 3, dst_idx += 4)
36     {
37         uint8_t s0 = data[src_idx];
38         uint8_t s1 = data[src_idx + 1];
39         uint8_t s2 = data[src_idx + 2];
40
41         dst[dst_idx + 0] = charset[(s0 & 0xfc) >> 2];
42         dst[dst_idx + 1] = charset[((s0 & 0x03) << 4) | ((s1 & 0xf0) >> 4)];
43         dst[dst_idx + 2] = charset[((s1 & 0x0f) << 2) | (s2 & 0xc0) >> 6];
44         dst[dst_idx + 3] = charset[(s2 & 0x3f)];
45     }
46
47     if (src_idx < len)
48     {
49         uint8_t s0 = data[src_idx];
50         uint8_t s1 = (src_idx + 1 < len) ? data[src_idx + 1] : 0;
51
52         dst[dst_idx++] = charset[(s0 & 0xfc) >> 2];
53         dst[dst_idx++] = charset[((s0 & 0x03) << 4) | ((s1 & 0xf0) >> 4)];
54         if (src_idx + 1 < len)
55             dst[dst_idx++] = charset[((s1 & 0x0f) << 2)];
56     }
57 }
```

Filehippo.com

Line 31, Column 52

Spaces: 4 C++

<http://tinyurl.com/k9ore9o>

- GettingStarted.pdf
 - How to open python on your own computer
- AdvancedBasics.py
 - data structures and python basics
- Summary_fasta.py
 - Output a brief summary from an input file
- data_and_plotting.py
 - process data using python and easy plotting
- resources.txt
 - Some links to a few nice resources