## Installing Anaconda and PyCharm

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### Outline

- 1. Download and Install Anaconda
- 2. Download and Install PyCharm
- 3. Linking Anaconda to PyCharm
- 4. Testing a Python Program

If you have a mac, make sure to download the macOS installer for both programs

## Installing Anaconda

## Downloading Anaconda [Windows]

- <u>https://www.anaconda.com/download/</u>
  - Make sure you download Python 3.X

| Windows  | 🔹 macOS  👌 Linux   |  |  |  |  |  |  |
|--|--|--|--|--|--|--|--|
| Anaconda 5.0.1 For Windows Installer   |  |  |  |  |  |  |  |
| Python 3.6 version *<br>Download<br><u>64-Bit Graphical Installer (515 MB)</u> ?<br><u>32-Bit Graphical Installer (420 MB)</u> | Python 2.7 version *<br>Download<br><u>64-Bit Graphical Installer (500 MB)</u> (?)<br><u>32-Bit Graphical Installer (403 MB)</u> |  |  |  |  |  |  |

## Installing Anaconda

Registering as the default Python will make it easier to link Anaconda and PyCharm Advanced Installation Options

Customize how Anaconda integrates with Windows

#### Advanced Options

Add Anaconda to my PATH environment variable

Not recommended. Instead, open Anaconda with the Windows Start menu and select "Anaconda (64-bit)". This "add to PATH" option makes Anaconda get found before previously installed software, but may cause problems requiring you to uninstall and reinstall Anaconda.

Register Anaconda as my default Python 3.6

This will allow other programs, such as Python Tools for Visual Studio PyCharm, Wing IDE, PyDev, and MSI binary packages, to automatically detect Anaconda as the primary Python 3.6 on the system.

Anaconda, Inc. ------

< Back Install

Cancel

## Installing Packages in Anaconda

- Go to the "Anaconda Prompt"
  - On Mac it is "Terminal"
- pip install [your package name]
  - Anaconda comes with most useful packages already installed
  - As a test, you can try "pip install pandas"



## Installing PyCharm

## Downloading/Installing PyCharm

- <u>https://www.jetbrains.com/pycharm/download/#section=windows</u>
- Download the community edition, and associate it with .py files

#### Community

Lightweight IDE for Python & Scientific development

| DOWNLOAD          | ) |
|-------------------|---|
| Free, open-source |   |

| Create Desk | op Shortcut            |           |  |  |
|-------------|------------------------|-----------|--|--|
| 32-bit lau  | ncher 🗌 64-bit laun    | cher      |  |  |
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| .ру         |                        |           |  |  |
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|             |                        |           |  |  |
|             |                        |           |  |  |
|             | and install IDE v96 by | 1otBrains |  |  |

## Linking Anaconda to PyCharm

## Configuring Interpreter

- If you try to run a python file for the first time, PyCharm may throw an error
- This is likely because the Python interpreter is not configured
- Go to:
  - Settings
    - Project Interpreter

| Settings   |    |  |                     |           |       | ×  |
|--|----|--|---------------------|-----------|-------|----|
| Q.   |    | Project: secdownload > Project Interpreter     | For current project |           |       |    |
| Editor<br>> Code Style                           | 10 | Project Interpreter: < <u>No interpreter</u> > |                     |           | ~     | \$ |
| Inspections                                      | E  |  | м -                 | 1         |       |    |
| File and Code Templates                          | 6  | Package  | Version             | Latest    | _     | +  |
| File Encodings                                   | R) |  |                     |           |       | -  |
| Live Templates                                   |    |  |                     |           |       | 1  |
| File Types                                       |    |  |                     |           |       |    |
| Emmet  |    |  |                     |           |       |    |
| Images   |    |  |                     |           |       |    |
| Intentions                                       |    |  |                     |           |       |    |
| Language Injections                              | 囤  |  | Nothing to show     |           |       |    |
| Spelling   | 1  |  | Nothing to show     |           |       |    |
| TODO   |    |  |                     |           |       |    |
| Plugins  |    |  |                     |           |       |    |
| > Version Control                                | G  |  |                     |           |       |    |
| Project: secdownload                             | 喧  |  |                     |           |       |    |
| Project Interpreter                              | 喧  |  |                     |           |       |    |
| Project Structure                                |    |  |                     |           |       |    |
| <ul> <li>Build, Execution, Deployment</li> </ul> | t  |  |                     |           |       |    |
| > Debugger                                       |    |  |                     |           |       |    |
| Python Debugger                                  | •  |  |                     |           |       |    |
| Buildout Support                                 | •  |  |                     |           |       |    |
| ✓ Console  | 6  |  |                     |           |       |    |
| Python Console                                   | ¢. |  |                     |           |       |    |
| Languages & Frameworks                           | 6  |  |                     |           |       |    |
| > Tools  |    | P  |                     |           |       |    |
| 0  |    |  |                     | OK Cancel | Apply |    |

## Configuring Interpreter

Settings

• Once you are at the Project Interpreter screen, click the gear icon in the top right corner to bring up the interpreters window

×

• Then hit the plus sign to add a new interpreter

|  |                      |                              |                     | _         |       |                      |        |
|--|----------------------|------------------------------|---------------------|-----------|-------|----------------------|--------|
| Q.   | Project: secdownlo   | ad 👌 Project Interpreter 🛛 👘 | For current project |           |       |                      |        |
| Editor<br>> Code Style                           | Project Interpreter: | <no interpreter=""></no>     |                     |           | ~ ‡   |                      | 0      |
| Inspections 🕓                                    |                      |                              |                     | . 200.200 |       | Project Interpreters | X      |
| File and Code Templates                          | i                    | Package                      | Version             | Latest    | +     |                      |        |
| File Encodings                                   |                      |                              |                     |           | —     |                      |        |
| Live Templates                                   |                      |                              |                     |           | +     |                      | +      |
| File Types                                       |                      |                              |                     |           |       |                      |        |
| Emmet  |                      |                              |                     |           |       |                      |        |
| Images   |                      |                              |                     |           |       |                      |        |
| Intentions                                       |                      |                              |                     |           |       |                      |        |
| Language Injections                              |                      |                              | Nothing to show     |           |       | Nothing to show      | 1      |
| Spelling 🚳                                       |                      |                              | Nothing to show     |           |       | Nothing to show      |        |
| TODO   |                      |                              |                     |           |       |                      | -      |
| Plugins  |                      |                              |                     |           |       |                      |        |
| > Version Control                                |                      |                              |                     |           |       |                      |        |
| Project: secdownload                             | 1                    |                              |                     |           |       |                      | P      |
| Project Interpreter                              |                      |                              |                     |           |       |                      |        |
| Project Structure                                |                      |                              |                     |           |       |                      |        |
| <ul> <li>Build, Execution, Deployment</li> </ul> |                      |                              |                     |           |       |                      |        |
| > Debugger                                       |                      |                              |                     |           |       |                      |        |
| Python Debugger 👘                                |                      |                              |                     |           |       |                      |        |
| Buildout Support                                 |                      |                              |                     |           |       |                      |        |
| ✓ Console  |                      |                              |                     |           |       |                      |        |
| Python Console                                   |                      |                              |                     |           |       |                      |        |
| > Languages & Frameworks                         |                      |                              |                     |           |       | 01                   | e      |
| > Tools  |                      |                              |                     |           |       | OK.                  | Cancel |
| 0  |                      |                              |                     | OK Cancel | Apply |                      |        |

## Add System Interpreter from Anaconda

• Go to the System Interpreter tab, and select Anaconda3 as the base interpreter – this will make it easier to install packages than using the virtual environment



• Wait for the Background Tasks to Complete before running a program



# Testing a Python Program testriskfactors.py

- 1) Check packages
- 2) Run program

## Packages/Dependencies

• Packages not yet installed will be underlined in red by PyCharm

from bs4 import BeautifulSoup

- For any package underlined in red, go to the Anaconda prompt and type:
  - "pip install [your package name]"
  - In the example above, you would type "pip install bs4"

## **Trouble Shooting Dependencies**

• After installing all the packages, the top of the test program should have no red underlines:



#### You are now ready to run a test program

• The options for running a program are in the top right of the PyCharm



• Here is a description of each feature



## Running the test program: testriskfactors.py

- The test program reads Apple's 2009 10-K, extracts the risk factors section, and counts the number of words containing "regulat"
- It also creates a text file with the risk factors section
- Try running the program -- the output should be:

Unique Words Containing "regulat" {'regulations', 'regulation'} Number of Words Containing "regulat": 12 Total Number of Words: 7460