

Data X

Data-X:

Setup and prerequisites installation on Mac OSX

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Install Anaconda with Python 2.7

www.continuum.io/downloads

The screenshot shows the continuum.io/downloads page for Anaconda 4.2.0. At the top, there are three tabs: "Download for Windows", "Download for OSX" (which is selected), and "Download for Linux". Below the tabs, the page title is "Anaconda 4.2.0" followed by "For OSX". A note states: "Anaconda is BSD licensed which gives you permission to use Anaconda commercially and for redistribution." There are links for "Changelog" and "Graphical Installer". Under "Graphical Installer", instructions say: "1. Download the graphical installer
2. Double-click the downloaded .pkg file and follow the instructions". There is also a link for "More info". On the right side, under "Python 3.5 version", there are two options: "GRAPHICAL INSTALLER (407M)" (green button) and "COMMAND-LINE INSTALLER (349M)". Under "64-Bit", there are two options for Python 2.7: "GRAPHICAL INSTALLER (403M)" (blue button, circled in red) and "COMMAND-LINE INSTALLER (346M)".

Create Virtual Environment for Data-X & Install Jupyter Notebook

- Open Terminal
- Run the command:
 conda create -n data-x python=2.7

To activate Virtual environment:

```
source activate data-x
```

To deactivate Virtual environment:

```
source deactivate
```

```
[~ >>> conda create -n data-x python=2.7
Fetching package metadata .....
Solving package specifications: .....
```

Always Run Virtual Environment

N.B. Run: `source activate data-x`
every time you open a new terminal window.

```
~ >>> source activate data-x  
(data-x) ~ >>>
```

Install Data-X package dependencies

List of packages

- ✓ jupyter
- ✓ numpy
- ✓ pandas
- ✓ matplotlib
- ✓ scipy
- ✓ scikit-learn
- ✓ scikit-image
- ✓ sqlalchemy
- ✓ nltk
- ✓ seaborn

Anaconda comes with many packages pre-installed, but if you want to install additional packages (or update existing ones you can run):

Install package by running:

```
conda install [package name]
```

Install packages by running:

```
conda install [pkg1] [pkg2] [pkg3]
```

```
[data-x] ~ >>> conda install numpy
```

Install Correct version of OpenCV

Run

```
conda install -c https://conda.binstar.org/menpo opencv
```

```
[data-x] ~ >>> conda install -c https://conda.binstar.org/menpo opencv
```

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Install BeautifulSoup4, TensorFlow, Keras & Graphlab-Create

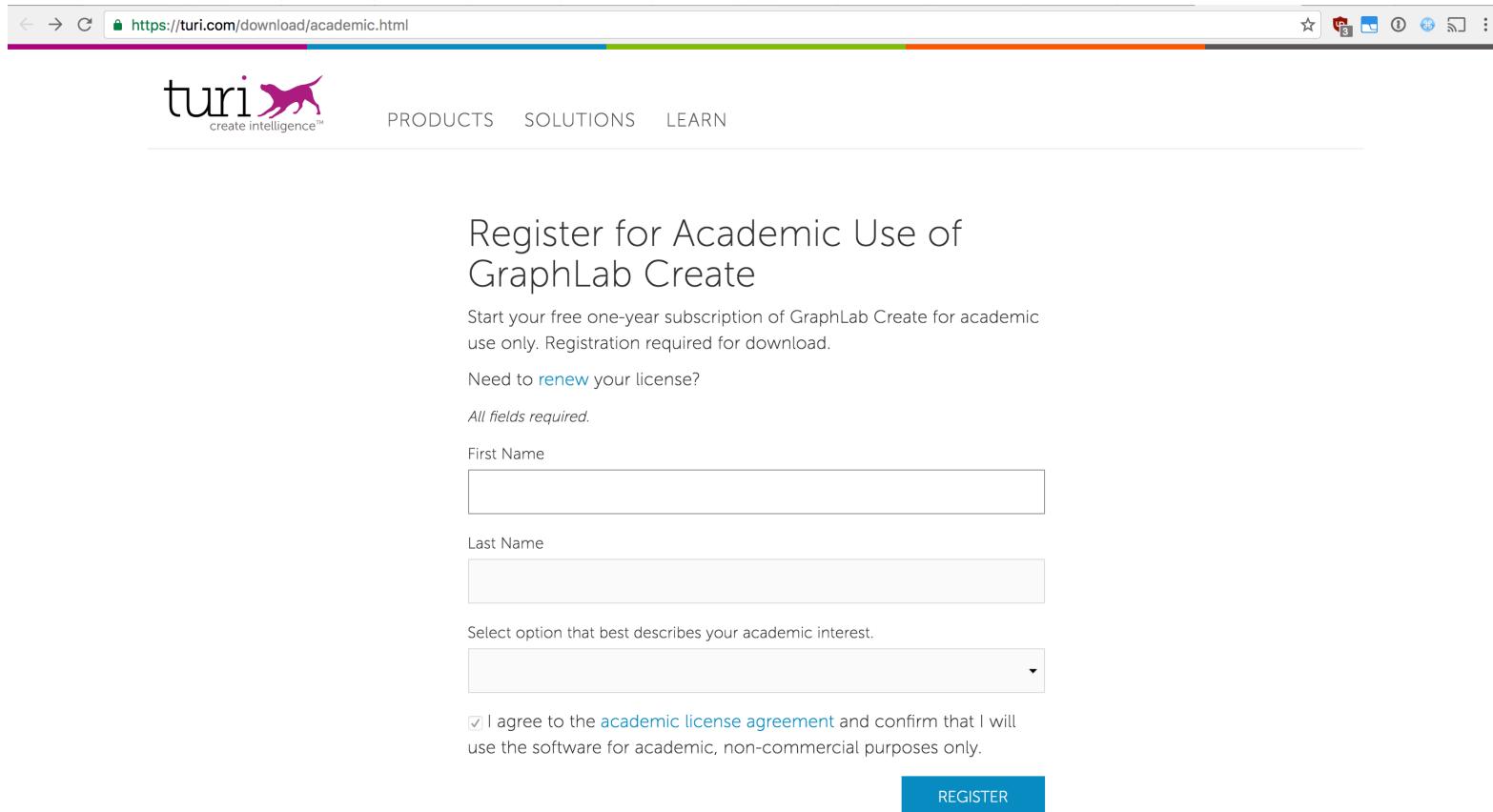
Run:

- `conda install -c anaconda beautifulsoup4=4.5.3`
- `conda install -c conda-forge tensorflow`
- `conda install h5py`
- `conda install -c conda-forge Keras`



Install Graphlab-Create

<https://turi.com/download/academic.html>



The screenshot shows a web browser displaying the URL <https://turi.com/download/academic.html>. The page is titled "Register for Academic Use of GraphLab Create". It features a subheader: "Start your free one-year subscription of GraphLab Create for academic use only. Registration required for download." Below this, there is a link "Need to [renew](#) your license?". A note "All fields required." is present above the first input field. The form includes fields for "First Name" and "Last Name", both represented by empty input boxes. There is also a dropdown menu labeled "Select option that best describes your academic interest." At the bottom, there is a checkbox agreement: " I agree to the [academic license agreement](#) and confirm that I will use the software for academic, non-commercial purposes only." A blue "REGISTER" button is located at the bottom right of the form area.

← → ⌂ https://turi.com/download/academic.html

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REGISTER



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Install Graphlab-Create

When you have registered your information press "View Instructions" under Install with pip. Go to step three and in your terminal run (with your specific **[email address]** and **[license code]**):

```
pip install --upgrade --no-cache-dir  
https://get.graphlab.com/GraphLab-Create/2.1/  
[email address]/[license code]/GraphLab-Create-  
License.tar.gz
```

```
# run if Kernel crashes:  
conda install -c conda-forge  
backports.shutil_get_terminal_size
```

Install Python 3 as a Virtual Environment

If you want to run Python 3 and Python 2 from the same Anaconda installation, then simply create a Virtual Environment for Python 3

- **In the Terminal, run the command:**

```
conda create -n data-x_py3 python=3 ipykernel  
source activate data-x_py3  
sudo python -m ipykernel install --user
```

To activate Python 3 Virtual environment:

```
source activate data-x_py3
```

To deactivate Python 3 Virtual environment:

```
source deactivate
```

Note: If you have installed Anaconda with Python 3, then change all 3's in the code above to to 2 in order to install a Python 2 kernel.

Please note, many functions, modules and libraries differ between the two versions of Python. However, any issue can usually be solved quite easily by googling the error message and at the top of your script running:

```
from __future__ import absolute_import, division, print_function
```

End of Section

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