# Visual guide for installation instruction

## For Mac OS X

**SingHealth Duke-NUS Academic Medical Centre**

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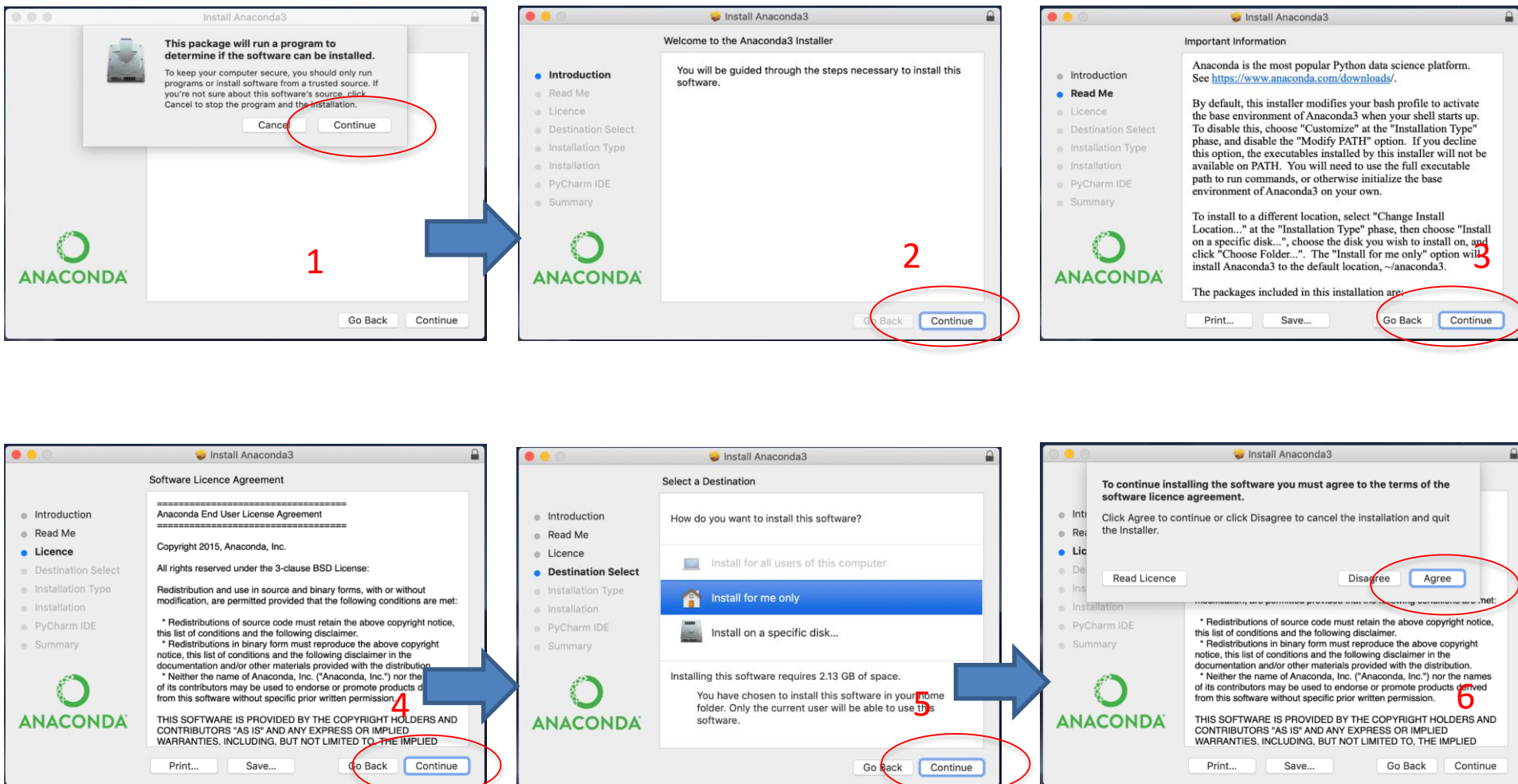
# 1. Download and install Anaconda

- Go https://www.anaconda.com/distribution/ and click on **Download Python 3.7 version**
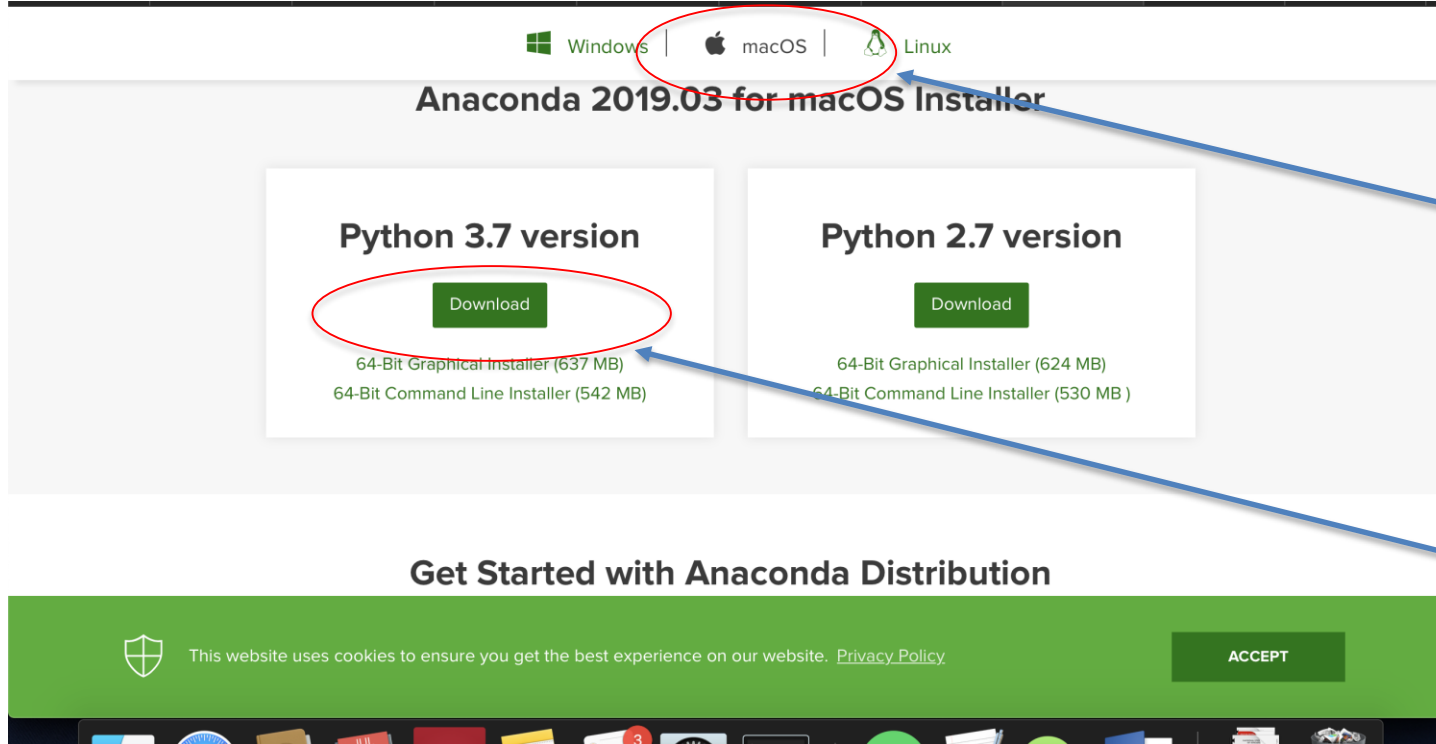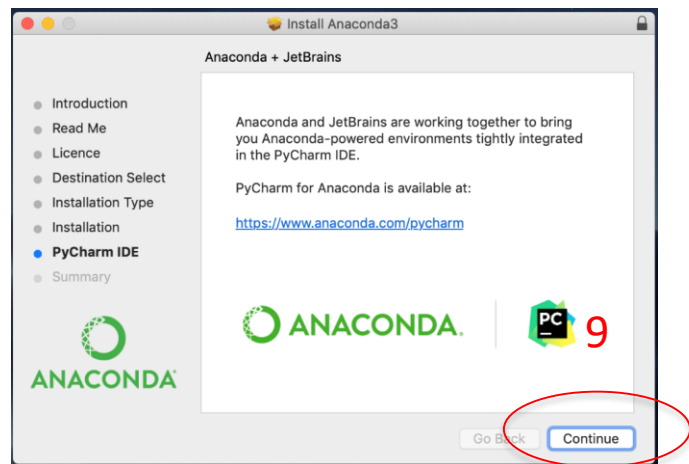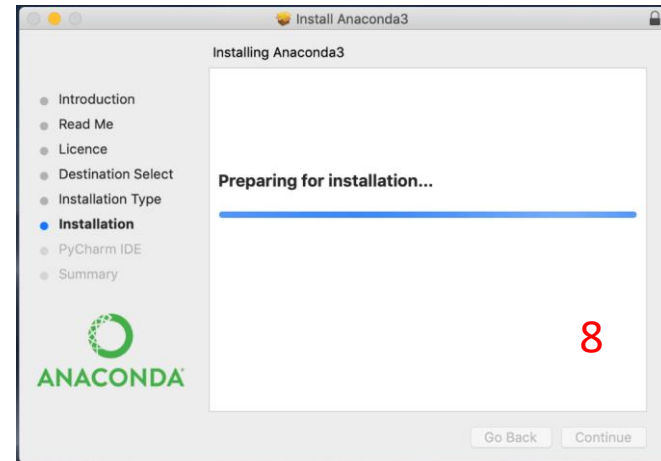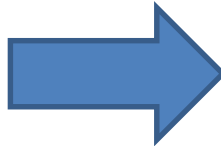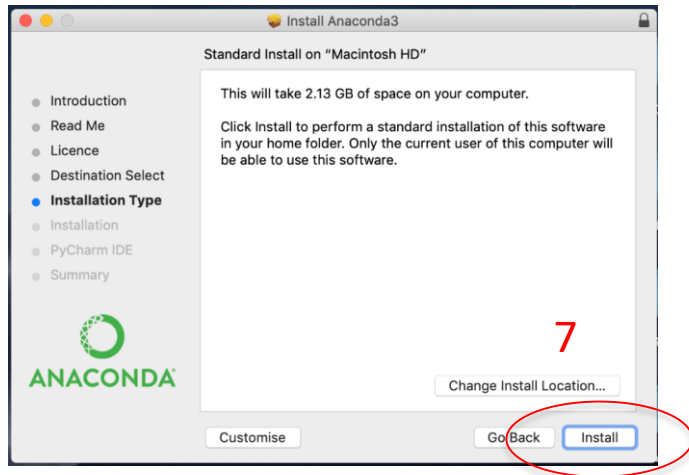


Click here for the macOS version

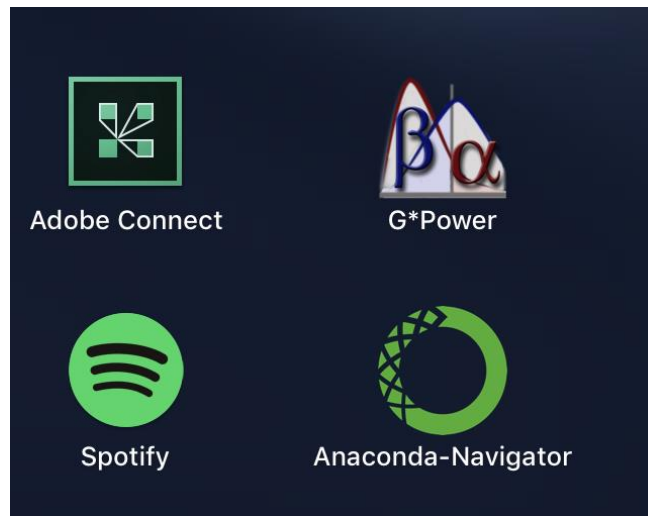Download here for Python 3.7

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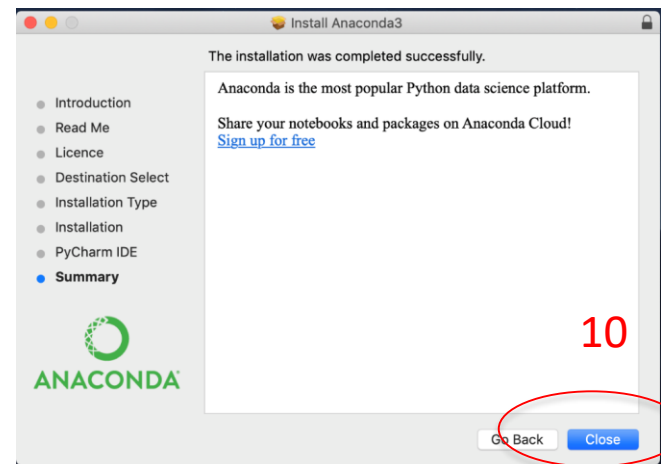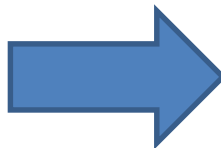
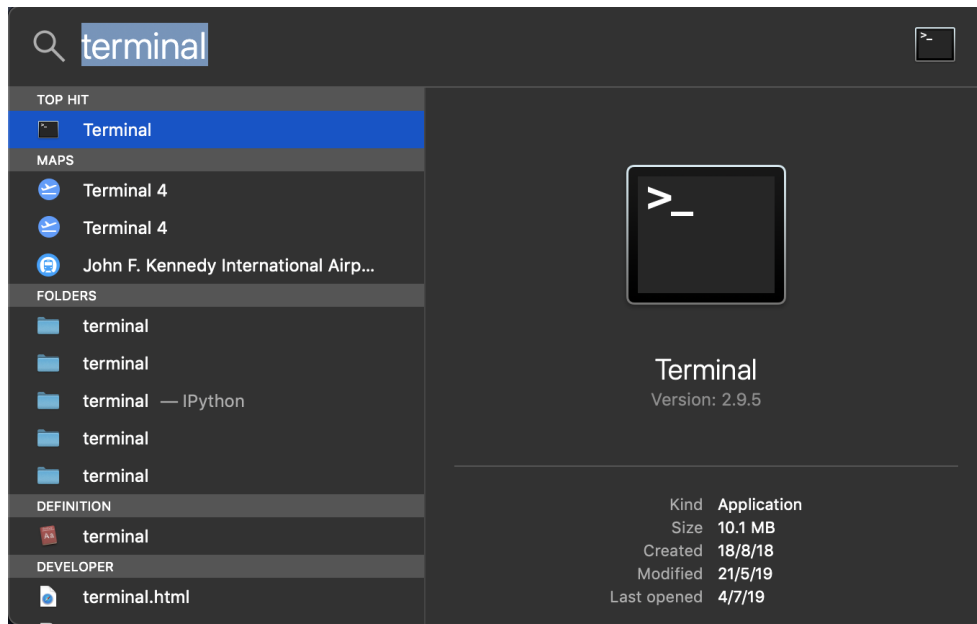# 1. Download and install Anaconda

- Make sure you see the **Anaconda Navigator** Icon in your **Launchpad**



- **Now you have installed Anaconda**

# 1.1 Open the macOS terminal

- Cmd+Space bar to open Spotlight search

- Type '**terminal**' and open it

# 2. Create a Tensorflow environment in terminal

conda create –n tensorflow python=3.6

```
(base) Ducs-MacBook-Pro:~ ducquangnguyen$ conda create -n tensorflow python=3.6
WARNING: The conda.compat module is deprecated and will be removed in a future r
elease.
Collecting package metadata: done
Solving environment: done

==> WARNING: A newer version of conda exists. <==
  current version: 4.6.11
  latest version: 4.7.5

Please update conda by running
```

Type this line into terminal

- Please wait for the installation to complete
- Note that we have to **key in 'y'** in order to proceed with installation

```
   zlib                    pkgs/main/osx-64::zlib-1.2.11-h1de35cc_3

Proceed ([y]/n)? y
```

# 3. Activate your new environment:

conda activate tensorflow

Type this line into terminal

- You will see your prompt prepend (Tensorflow) to indicate that you are in your Tensorflow environment

```
[(base) Ducs-MacBook-Pro:~ ducquangnguyen$ conda activate tensorflow
(tensorflow) Ducs-MacBook-Pro:~ ducquangnguyen$ 
```

**Prepend here! Now you are in Tensorflow**

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# 4. Install some prerequisite packages

conda install imageio numpy matplotlib jupyter spyder tqdm urllib3 h5py



Type this line into terminal

**in Tensorflow environment you just activated**

- to **key in 'y'**

# 5. Install either the CPU version or GPU version of TensorFlow

- **CPU**

pip install --ignore-installed --upgrade https://storage.googleapis.com/tensorflow/mac/cpu/tensorflow-1.12.0-py3-none-any.whl

Type this line into terminal

```
Preparing transaction: done
Verifying transaction: done
Executing transaction: done
(tensorflow) Ducs-MacBook-Pro:~ ducquangnguyen$ pip install --ignore-installed --upgrade https://storage.googleapis.com/ten
sorflow/mac/cpu/tensorflow-1.12.0-py3-none-any.whl
```

- The above only applies to CPU version. For the purposes of this demo though, the CPU version is sufficent.

# Verify TensorFlow Installation

a) Enter: python

b) Enter this program into your Python shell:

```
import tensorflow as tf
hello = tf.constant('Hello, TensorFlow!')
sess = tf.Session()
print(sess.run(hello))
```

```
(base) Ducs-MacBook-Pro:~ ducquangnguyen$ conda activate tensorflow
(tensorflow) Ducs-MacBook-Pro:~ ducquangnguyen$ python
Python 3.6.8 |Anaconda, Inc.| (default, Dec 29 2018, 19:04:46)
[GCC 4.2.1 Compatible Clang 4.0.1 (tags/RELEASE_401/final)] on darwin
Type "help", "copyright", "credits" or "license" for more information.
>>> import tensorflow as tf
>>> hello = tf.constant('Hello')
>>> sess = tf.Session()
[2019-07-03 14:39:44.759518: I tensorflow/core/platform/cpu_feature_guard.cc:141] Your CPU supports instructions th
t this TensorFlow binary was not compiled to use: AVX2 FMA
>>> print(sess.run(hello))
b'Hello'
>>> quit()
(tensorflow) Ducs-MacBook-Pro:~ ducquangnguyen$
```

- You just completed the installation!