

# Software Setup Steps

NOAA CPC International Desks

**QGIS Install** ... during the installation process, if asked, choose not to download the tutorial data

**Windows Users:**

[https://ftp.osuosl.org/pub/osgeo/download/qgis/windows/QGIS-OSGeo4W-3.18.3-1-Setup-x86\\_64.exe](https://ftp.osuosl.org/pub/osgeo/download/qgis/windows/QGIS-OSGeo4W-3.18.3-1-Setup-x86_64.exe)

**Mac Users:** <https://qgis.org/downloads/macos/qgis-macos-ltr.dmg>

**Linux Users:** <https://ubuntu.qgis.org/ubuntu/>

## Anaconda Install

<https://www.anaconda.com/download/>

Grab 32 or 64 bit depending on your machine

**Open the Anaconda Navigator Application**

## Python Environment Install for Practicals

1. **Download** the **intdesk** and **ml\_train environment** files for your system (Windows, Mac or Linux)  
**Windows Users**, download **intdesk-win-64.txt** and **mltrain-win-64.txt**  
**Mac Users**, download **intdesk-osx-64.txt** and **mltrain-osx-64.txt**  
**Linux Users**, download **intdesk-lnx-64.txt** and **mltrain-lnx-64.txt**
2. **Open a terminal window in Anaconda** command shell (you can do this in Anaconda Navigator)
3. Make sure your **terminal window is in the same directory** where your environment files were downloaded. **Create an 'Int\_desk\_training' folder**, and **put your intdesk and mltrain environment text files into that directory**. Then **navigate to that directory in your terminal window**. You may need to copy and paste something like the following into your terminal window:  
`cd /Users/<YOURUSERNAME>/Desktop/Int_desk_training`
4. **Create general international desk training environment:**  
In the same terminal window, copy and paste the following commands one at a time, substituting the name of your **intdesk** environment file.

Unset

```
conda create -n intdesk_train --file intdesk-win-64.txt
conda activate intdesk_train
python -m ipykernel install --name=intdesk_train --user
```

5. **Create a machine learning training environment:**

In the same terminal window, copy and paste the following commands one at a time, substituting the name of your **mltrain** environment file.

Unset

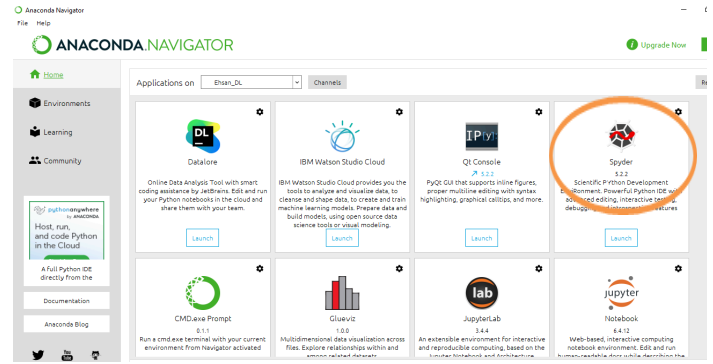
```
conda create -n mltrain --file mltrain-win-64.txt
conda activate mltrain
pip install tensorflow
python -m ipykernel install --name=mltrain --user
```

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## Spyder Installation

Click to **install Spyder** inside Anaconda Navigator Home page



## Software installation for onset, dry and wet spell forecasting and logistic regression

For Windows 10-11 Users, Complete Steps 1-2 first, if using Mac or Linux, jump straight to step 3

### 1. Enable WSL in Windows by opening a powershell prompt as an administrator

Copy and paste the following commands in the powershell prompt one at a time:

Unset

```
wsl --install
wsl --set-default-version 2
wsl --install -d Ubuntu
```

### 2. Restart the computer and start Ubuntu

Copy and paste the following commands into the Ubuntu terminal one at a time:

Unset

```
sudo apt-get update
sudo apt-get install imagemagick
sudo apt-get install firefox --fix-missing
sudo apt install x11-apps -y
```

### 3. For All Users, Create an R Environment designed to support statistical analysis. Start a new Ubuntu (or just open a terminal window if using a Mac or Linux Machine), and copy and paste the following commands, one at a time, into the terminal window. Remember to click enter after each command is pasted

Unset

```
wget https://repo.anaconda.com/archive/Anaconda3-2024.02-1-Linux-x86_64.sh
bash Anaconda3-2024.02-1-Linux-x86_64.sh
conda create -n env -c conda-forge eccodes nc1 r-ncdf4 r-rnetcdf
```