Anaconda & Spider Installation for windows:

1. Please click on the link below

https://www.anaconda.com/download/#windows



2. Click on **Download**, and then you have to check for compatibility of your Pc, after that it will start downloading.

| | Anaconda Installer | S |
|-------------------------------------|--|--|
| Windows 🕊 | MacOS 🗉 | Linux 👌 |
| Python 3.8 | Python 3.8 | Python 3.8 |
| 64-Bit Graphical Installer (466 MB) | 64-Bit Graphical Installer (462 MB) | 64-Bit (x86) Installer (550 MB) |
| 32-Bit Graphical Installer (397 MB) | 64-Bit Command Line Installer (454 MB) | 64-Bit (Power8 and Power9) Installer (290 MB) |

- 3. Double click the installer to launch.
- 4. Click Next.

| Anaconda3 2020.07 (64) | -bit) Setup | _ | | \times |
|------------------------|---|-----------|-----------|----------|
| đ | Welcome to Anaconda3 (64-bit) Setup | 2020 | 0.07 | |
| Ĝ | Setup will guide you through the installati 2020.07 (64-bit). | ion of A | Anaconda | 3 |
| ANACONDA | It is recommended that you close all othe before starting Setup. This will make it po relevant system files without having to re computer. | ossible t | to update | |
| NA | Click Next to continue. | | | |
| A | | | | |
| | | | | |
| | Next > | > | Cano | el |

5. Read the licensing terms and click "I Agree".

| Anaconda3 2020.07 (64- | bit) Setup | _ | | × |
|--|--|-------------------|-----------|-----|
| O ANACONDA. | License Agreement Please review the license terms bef 2020.07 (64-bit). | fore installing A | naconda3 | 1 |
| Press Page Down to see th | e rest of the agreement. | | | |
| | nt - Anaconda Individual Edition | | | ^ |
| Copyright 2015-2020, Ana | aconda, Inc. | | | |
| All rights reserved under t | | | | |
| and Anaconda, Inc. ("Ana | eement (the "Agreement") is a legal ag conda") and governs your use of Anao n as Anaconda Distribution). | | | ~ |
| If you accept the terms of agreement to install Anaco | the agreement, click I Agree to contin nda3 2020.07 (64-bit). | ue. You must a | ccept the | |
| Anaconda, Inc | | | | |
| | < Back | I Agree | Can | cel |

6. Select an install for "Just Me" unless you're installing for all users (which require Windows Administrator privileges) and click Next.

| O Anaconda3 2020.07 (64- | bit) Setup | _ | | × |
|--|---|----------------|------------|---------|
| O ANACONDA. | Select Installation Type Please select the type of installation y Anaconda3 2020.07 (64-bit). | you would like | e to perfo | orm for |
| Install for: Just Me (recommended All Users (requires admi | - | | | |
| Anaconda, Inc. ———— | < Back | Next > | Can | ncel |

7. Select a destination folder to install Anaconda and click the Next button.

| Anaconda3 2020.02 (64- | bit) Setup | | — | | \times |
|--|--------------------------------------|---|-------------|-------------|----------|
| O ANACONDA. | Choose Install I Choose the folde | L ocation r in which to install A | naconda3 20 | 20.02 (64-b | it). |
| Setup will install Anaconda: folder, click Browse and sel | | | | a different | |
| Destination Folder | onda3 | | Brow | se | |
| Space required: 3.0GB Space available: 18.2GB Anaconda, Inc. | | | | | |
| | | < Back | Next > | Cancel | |

8. Choose whether to add Anaconda to your PATH environment variable. We recommend not adding Anaconda to the PATH environment variable, since this can interfere with other software.

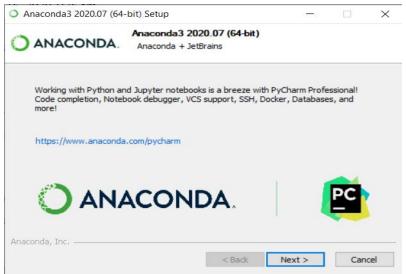
Instead, use Anaconda software by opening Anaconda Navigator or the Anaconda Prompt from the Start Menu

NOTE: Choose whether to register Anaconda as your default Python. Unless you plan on installing and running multiple versions of Anaconda or multiple versions of Python, accept the default and leave this box checked.

9. Click the Install button. If you want to watch the packages Anaconda is installing, click Show Details

| O Anaconda3 2020.02 (64- | bit) Setup | _ | | \times |
|--|--|----------------|------|----------|
| O ANACONDA. | Advanced Installation Options Customize how Anaconda integrates wi | th Windows | | |
| Advanced Options | o my PATH environment variable | | | |
| menu and select "An Anaconda get found cause problems requ | nstead, open Anaconda3 with the Window aconda (64-bit)". This "add to PATH" optio before previously installed software, but r irring you to uninstall and reinstall Anacond | n makes may | | |
| This will allow other p PyCharm, Wing IDE, | da3 as my default Python 3.7 programs, such as Python Tools for Visual S PyDev, and MSI binary packages, to auto the primary Python 3.7 on the system. | | | |
| Anaconda, Inc. — | < Back Ir | nstall | Cano | cel |

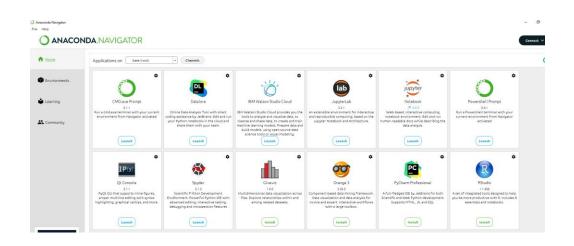
10. Click the Next button.



11. And then click the Finish button.

| Anaconda3 2020.02 (64) | -bit) Setup — 🗆 🖂 |
|------------------------|--|
| Ă. | Completing Anaconda3 2020.02 (64-bit) Setup |
| ANACONDA | Thank you for installing Anaconda Individual Edition. Here are some helpful tips and resources to get you started. We recommend you bookmark these links so you can refer back to them later. I Anaconda Individual Edition Tutorial |
| ANA(| Learn More About Anaconda |
| 0 | |
| | < Back Finish Cancel |

- 12. After a successful installation you will see the "Thanks for installing Anaconda" dialog box:
- 13. To open Anaconda Navigator, just search it in the windows search. After opening, it will appear as follows. You will see various applications available on the base (root) environment.



Creating a new Tensorflow environment and installing other packages

1. Go to "Environmets" tab. Initially, you will only see the "base (root)" environment. To create a new environment, click on "Create" button.

| ome Search Envi | onments Q | Installed | Channels Update index | Search Packages |
|--------------------------------|-----------|--------------------|---|-----------------|
| base (roo | 0 | Name V | T Description | Version |
| invironments | | 🧧 _jpyw_jlab_nb_ex | O A configuration metapackage for enabling anaconda-bundled jupyter extensions | 0.1.0 |
| | | alabester | O Configurable, python 2+3 compatible sphinx theme. | 0.7.12 |
| aarning | | 🖬 anaconda | O Simplifies package management and deployment of anaconda | 2021.11 |
| | | anaconda-client | O Anaconda cloud command line client library | 1.9.0 |
| mmunity | | anaconda-project | O Tool for encapsulating, running, and reproducing data science projects | ₹ 0.10.1 |
| | | 🖬 anyio | O High level compatibility layer for multiple asynchronous event loop implementations on python | 2.2.0 |
| | | appdirs | O A small python module for determining appropriate platform-specific dirs. | 1.4.4 |
| | | 🔤 argh | O The natural cli. | 0.26.2 |
| | | 🖬 argon2-cffi | O The secure argon2 password hashing algorithm. | 20.1.0 |
| | | arrow | O Better dates & times for python | A 0.13.1 |
| | | < asnicrypto | O Python asn.1 library with a focus on performance and a pythonic api | 1.4.0 |
| | | astroid | O A ebstract syntax tree for python with inference support. | ⊅ 2.6.6 |
| | | estropy | O Community-developed python library for astronomy | 4.3.1 |
| | | async-generator | • | 1.10 |
| | | async_generator | O Async generators and context managers for python 3.5+ | 1.10 |
| k up your | | atomicwrites | O Atomic file writes | 1.4.0 |
| ironments in cleus for free | | 🖾 attrs | O Attrs is the python package that will bring back the joy of writing classes by relieving you from the drudgery of implementing object protocols (aka dunder methods). | 21.2.0 |
| Join Now | | autopep8 | O A tool that automatically formats python code to conform to the pep 8 style guide | 1.5.7 |
| back up, port, and | | 🖬 babel | O Utilities to internationalize and localize python applications | 2.9.1 |
| any environment | | S backcell | O Specifications for callback functions passed in to an api | 0.2.0 |
| scumentation | | beckports | 0 | 1.0 |
| neconde Blog | | backports.functoo | • | 1.6.4 |
| | | backports function | O Baciport of functools iru_tache from python 3.3 as published at activestate. | 164 |

2. Give a name for the new environment, for example "ML_env", select the python version 3.8.18 from the drop-down, and click on the "Create" button. It may take some time for creating it.

| Create new | v environment | | × |
|------------|----------------------------|--------------------|---|
| Name: | ML_env | | |
| Location: | C:\Users\suraj\ana | conda3\envs\ML_env | For the latest installation of |
| Packages: | Python | 3.8.12 | Anaconda, please use 3.8.18 version of Python here |
| | R | 3.6.1 | |
| | | Cancel | Create |

3. You will see a new environment created, namely "ML_env" here. You can see all the available packages in this environment by clicking on the drop-down and select "All" as shown below.

| Search | Environments Q | R Installed | Channels Update index | Search Packages Q |
|---|----------------|---|---|--|
| base | r (root) | Name | Y T Description | Version |
| vironments ML_ | env 🔘 | Ca-certificates | O Certificates for use with other packages. | 2021.10.2 |
| ML_ | | 🗹 certifi | O Python package for providing mozilla's ca bundle. | 2021.10.8 |
| arning | | openssl | O OpenssI is an open-source implementation of the ssI and tIs protocols | 1.1.11 |
| | | 🖾 pip | O Pypa recommended tool for installing python packages | 21.2.4 |
| mmunity | | g python | O General purpose programming language | ≯ 3.9.7 |
| | | setuptools | O Download, build, install, upgrade, and uninstall python packages | 56.0.4 |
| | | 🖬 sqlite | O Implements a self-contained, zero-configuration, sql database engine | 3.36.0 |
| | | d tzdata | O The time zone database (called tz, tzdb or zoneinfo) | 2021e |
| | | 🖬 vc | O A meta-package to impose mutual exclusivity among software built with different vs versions | 14.2 |
| | | vs2015_runtime | O Msvc runtimes associated with cl.exe version 19.27.29111 (vs 2019 update 5) | 14.27.29 |
| | | wheel | O A built-package format for python. | 0.37.0 |
| | | | | |
| | AVIGATOR | wincertstore | Python module to extract a and cri certs from windows' cert store (ctypes based). | 0.2 - @ Connect |
| ANACONDA.N | | wincertatore | Pythen module to extract a and ori certs from windows' cert store (dtypes based). | - 0 |
| | Environments C | | Channels Update Index. | - Ø Connect (Search Packages |
| ANACONDA.N. | | | | - a |
| ANACONDA.N. me Search vironments | Environments C | All MERLIES Not initialled Updatale | Channels Update Index. | - O Connect (Search Packages Version |
| MACONDA.N. | e (root) | All Material All Material Notinitalied Updatable Selected | Channels Update Index. | - 3 Concet (Search Packages Version 920 19:00 |
| MACONDA.N. | e (root) | All Matines Not installed Updatalie Selected ✓ All | Channels Update index | - Ø Conset (Search Packages Version 920 19.00 5.3.1 |
| ANACONDA.N. me (serci vronments Mi, | e (root) | All Matanine Not installed Updatalie seiscted ✓ All | Channels Update Index cription Suffers spockage management and deployment of anconds The polang select package. | - 5 Connect (Search Packages Version 920 19:00 |
| ANACONDA.N. me (serci viconments Mi, | e (root) | All Mitalite Not insalled Updatelie selected ✓ All | | - 5 Connect (Search Nackages Version 920 1920 531 531 531 531 531 531 531 531 531 531 |
| vironments | e (root) | All Mitalitie updatalie seiecced All | | - 0 Constat Starch Packages Version 920 1950 1950 1950 1950 1950 1950 1950 195 |
| ANACONDA.N. me (serci viconments Mi, | e (root) | All Matanica Not insalided Updatalie seiscted All | | - 0 Connect Connect Search Packages Version 920 920 920 920 920 920 920 920 920 920 |
| ANACONDA.N. me (serci viconments Mi, | e (root) | Al Manue Not installed Updatale Selected Joy-Job_rb_crk Joy-Job_rb_crk Joper_modes Joper_modes Joper_modes | | - 0 Convect Convect Version 1920 |
| ANACONDA.N. me (serci viconments Mi, | e (root) | Al Matarie Not installed Updatale Selected Joyalable Joya | | - 0 Concect Centrol: Produgent 920 192 |
| ANACONDA.N. me <u>serror</u> vronments M. | e (root) | Al Manue Not installed Updatale Selected Joy-Job_rb_crk Joy-Job_rb_crk Joper_modes Joper_modes Joper_modes | | - 0 Convect Convect Version 1920 |

4. Now use "Search Packages" box to search the packages. For example, for installing Tensorflow packages, search it and select "tensorflow" and "tensorflow-base" and click on "Apply"

| All | Channels Update index | tensorflow X |
|-------------------------|---|--------------|
| Name 🗸 | T Description | Version |
| keras | O Deep learning library for thesno and tensorflow | 2.6.0 |
| keras-gpu | O Deep learning library for theano and tensorflow | 2.6.0 |
| opt_einsum | O Optimizing einsum functions in numpy, tensorflow, dask, and more with contraction order optimization. | 3.3.0 |
| r-tensorflow | 0 | 1.8 |
| tensorboard | O Tensorflow's visualization toolkit | 2.6.0 |
| tensorflow | D Tensorflow is a machine learning library. | 2.6.0 |
| tensorflow-base | D Tensorflow is a machine learning library, base package contains only tensorflow. | 2.6.0 |
| tensorflow-datasets | • Tensorflow/datasets is a library of datasets ready to use with tensorflow. | 1.2.0 |
| tensorflow-eigen | O Metapackage for selecting a tensorflow variant. | 2.5.0 |
| estimator | O Tensorflow estimator is a high-level tensorflow api that greatly simplifies machine learning programming. | 2.6.0 |
| tensorflow-gpu | O Metapackage for selecting a tensorflow variant. | 2.5.0 |
| tensorflow-gpu- base | O Tensorflow is a machine learning library, base gpu package, tensorflow only. | 1.8.0 |
| tensorflow-hub | O A library for transfer learning by reusing parts of tensorflow models. | 0.8.0 |
| tensorflow- metadata | O Library and standards for schema and statistics. | 0.14.0 |
| tensorflow-mkl | O Metapackage for selecting a tensorflow variant. | 2.5.0 |
| tensorflow-proba | O Tensorflow probability is a library for probabilistic reasoning and statistical analysis in tensorflow | 0.8.0 |

5. It will show you the list of packages, which will get modified/ installed. Then click on "Apply" and wait for installation to complete. Once it is over, you will see a check box appearing in front of the installed packages.

| | Name | Unlink | Link | Channel | Action | ^ | | |
|----|------------------------|--------------|--------------|------------|-----------|---|--------------------------|---|
| | *zlib | - | 1.2.11 | pkgs/main | Installed | | tensorboard | Tensorflow's visualization toolkit |
| | *zipp | - | 3.6.0 | pkgs/main | Installed | | tensorflow | Tensorflow is a machine learning library. |
| | *yarl | - | 1.6.3 | pkgs/main | Installed | | | |
| | *wrapt | - | 1.13.3 | pkgs/main | Installed | | tensorflow-base | Tensorflow is a machine learning library, base pa |
| | *win_inet_pton | - | 1.1.0 | pkgs/main | Installed | ~ | tensorflow-datasets | O Tensorflow/datasets is a library of datasets read |
| | | | | | | | tensorflow-eigen | O Metapackage for selecting a tensorflow variant. |
| di | cates the package is a | dependency o | F a selected | l packages | | | tensorflow- estimator | O Tensorflow estimator is a high-level tensorflow |
| | | | Cance | | Apply | | tensorflow-gpu | O Metapackage for selecting a tensorflow variant. |

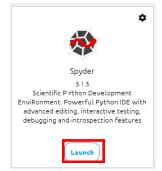
6. Further, in this environment, search and install "Keras" and "Keras-base". Also do the same for "Pandas", "Scikit-learn" and "Seaborn".

| Name v T Description Ise keras O Deep learning library for theano and tensorflow Ise keras-applications O Applications module of the keras deep learning library. | Version 2.6.0 1.0.8 | | | |
|---|---------------------------|--|--|--|
| keras-applications O Applications module of the keras deep learning library. | | | | |
| | 1.0.8 | | | |
| | | | | |
| 🛛 keras-base 🛛 🔿 | 2.6.0 | | | |
| keras-gpu O Deep learning library for theano and tensorflow | 2.6.0 | | | |
| -preprocessing O Data pre | | | | |
| r-keras O 2 packages will be installed | 2.2.4 | | | |
| r-kerasr O I keras-base - 2.6.0 pkgs/main installed | 0.6.1 | | | |
| 1 keras-base - 2.6.0 pkgs/main Installed 2 keras - 2.6.0 pkgs/main Installed | | | | |

7. For installing Spyder IDE on this new environment, go to "Home" tab. In the created "ML_env", click on "Install" button for Spyder.

| Home | Applications on ML_env v Channels | | | | | | |
|--------------|---|---|---|--|--|---|--|
| Environments | * | * | Ŷ | · · | ¢ | Jupyter | |
| Learning | Datalore | IBM Watson Studio Cloud | CMD.exe Prompt | Glueviz | JupyterLab | Notebook | |
| Community | Online Data Analysis Tool with smart coding assistance by JetBrains. Edit and run your Python notebooks in the cloud and share them with your team. | IBM Watson Studio Cloud provides you the tools to analyze and visualize data, to cleanse and shape data, to create and train machine learning models. Prepare data and build models, using open source data | 0.1.1 Run a cmd.exe terminal with your current environment from Navigator activated | 1.0.0 Multidimensional data visualization across files. Explore relationships within and among related datasets. | 3.2.1 An extensible environment for interactive and reproducible computing, based on the Jupyter Notebook and Architecture. | 6.4.6 Web-based, interactive computing notebook environment. Edit and ru human-readable docs while describing data analysis. | |
| | Launch | science tools or visual modeling. | Install | Install | Install | Install | |
| | * | Ô | * | ¢ IP(y): | R | * | |
| | Orange 3 | Powershell Prompt | PyCharm Professional | Qt Console | RStudio | Spyder | |
| | 3.26.0 Component based data mining framework. Data visualization and data analysis for novice and expert. Interactive workflows with a large toolbox. | 0.0.1 Run a Powershell terminal with your current environment from Navigator activated | A full-fledged IDE by JetBrains for both Scientific and Web Python development. Supports HTML, JS, and SQL. | 5.1.1 PyQt GUI that supports inline figures, proper multiline editing with syntax highlighting, graphical calltips, and more. | 1.1.456 A set of integrated tools designed to help you be more productive with R. Includes R essentials and notebooks. | 5.1.5 Scientific PYthon Development EnviRonment. Powerful Python IDE v advanced editing, interactive testi debugging and introspection featur | |
| | Install | Install | Install | Install | Install | Install | |

After successful installation of Spyder, a "Launch" button will appear to launch the Spyder IDE.



Spyder:

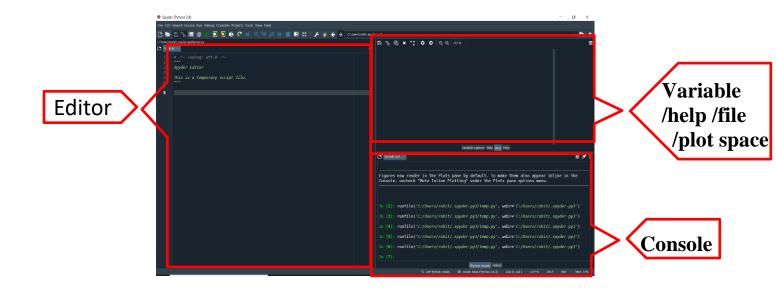
Spyder, the Scientific Python Development Environment, which is a free integrated development environment (IDE) that is included with Anaconda.

It includes:

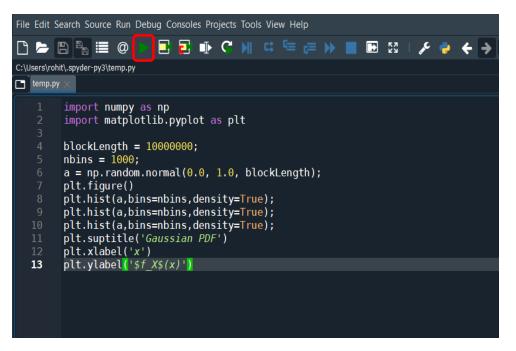
- Editing,
- Interactive testing,
- Debugging,
- Introspection features.

Steps for Spyder setup and run a test code:

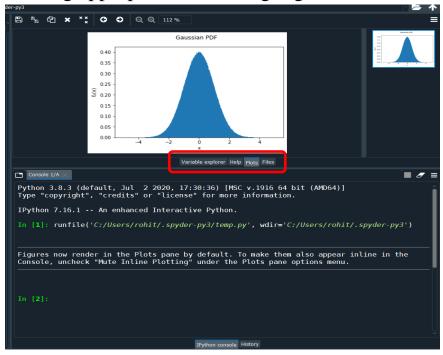
- 1. In Window search box, type Spyder and press Enter.
- 2. Spyder IDE opened and you can see a total of 3 area:
 - a. Editor
 - b. Console
 - c. Variable/help/file/plot space.



3. Let's write a test code in Editor and run the code by clicking on Run button:



4. You can see the variable, plot, files on right side of IDE by clicking appropriate tabs as highlighted with Red color below:



5. As a whole Spyder screen look like as below :

