For assistance reach Eleftherios at emoschan@vols.utk.edu

Installation instructions for Windows.

Anaconda

Download Anaconda from: https://www.anaconda.com/distribution/#windows
For convenience set up the environment (it saves a lot of trouble): In the Anaconda Prompt type:
`conda create -n MY_ENV python=3` (replace MY_ENV with name you want).
`activate MY_ENV`

Qiskit (IBM Quantum Information kit)

Open the Anaconda Prompt and type
`pip install qiskit`

Microsoft Quantum Development Kit

instructions: https://docs.microsoft.com/en-us/quantum/install-guide/?view=qsharp-preview

1. install .NET core:
   https://dotnet.microsoft.com/download/dotnet-core/thank-you/sdk-3.1.100-windows-x64-installer
2. In the command prompt (or Anaconda command Prompt) type:
   `pip install qsharp`
   `dotnet tool install -g Microsoft.Quantum.IQSharp`
   `dotnet iqsharp install`
3. Run the "Hello World" examples from
   https://docs.microsoft.com/en-us/quantum/install-guide/?view=qsharp-preview, under the "**Develop with Python**" and "**Develop with Jupyter notebooks**" sections. The files need to in a directory without other applications otherwise you may get "Access denied" errors.

Installation instructions for MAC-OS.

Anaconda

Download Anaconda from: https://www.anaconda.com/distribution/#macos

Qiskit (IBM Quantum Information kit)

Open the Terminal and type
`pip install qiskit`

Microsoft Quantum Development Kit

instructions: https://docs.microsoft.com/en-us/quantum/install-guide/?view=qsharp-preview

1. install .NET core:
   https://dotnet.microsoft.com/download/dotnet-core/thank-you/sdk-3.1.100-macos-x64-installer

2. In the Terminal type:
   `pip install qsharp`
   `dotnet tool install -g Microsoft.Quantum.IQSharp`
   `dotnet iqsharp install`

3. Run the "Hello World" examples from
   https://docs.microsoft.com/en-us/quantum/install-guide/?view=qsharp-preview, under the "**Develop with Python**" and "**Develop with Jupyter notebooks**" sections. The files need to in a directory without other applications otherwise you may get "Access denied" errors.

Installation instructions for Linux.

Anaconda

Download Anaconda from: https://www.anaconda.com/distribution/#linux
Choose: Python 3.7 version, 64-Bit (x86) Installer
Then navigate to the directory containing the downloaded file. From the terminal give it permission to run (**ch**ange **mod**e):
`chmod +777 Anaconda3-2019.10-Linux-x86_64.sh`
(Your Anaconda version probably will be different)
Run it:
`./Anaconda3-2019.10-Linux-x86_64.sh` follow the instructions.

Why I see `(base)` in front of my command prompt? :
https://askubuntu.com/questions/1026383/why-does-base-appear-in-front-of-my-terminal-prompt
You can always check which folders are included in the `$PATH` (the directories where the system looks for installed programs) with
`echo $PATH`

Qiskit (IBM Quantum Information kit)

Install Qiskit with `pip` (the Python Package Installer). On the terminal type:
`pip install qiskit`

Microsoft Quantum Development Kit

instructions: https://docs.microsoft.com/en-us/quantum/install-guide/?view=qsharp-preview

1. install .NET core https://docs.microsoft.com/en-us/dotnet/core/install/linux-package-manager-ubuntu-1804 . Change the command according to your Linux distro.
   Enter the commands from the sections

   (a) **"Register Microsoft key and feed"** (the commands need to be specific for your Linux distro)

(b) **"Install the .NET Core SDK"**

2. From the terminal run
   `pip install qsharp`
   `dotnet tool install -g Microsoft.Quantum.IQSharp`
   IMPORTANT!. In order for the `dotnet-iqsharp` to be recognized as a program, its containing folder `~/dotnet/tools/` must be in the `$PATH`.
   Run:
   `which dotnet-iqsharp` to see if it is recognized as program. If it doesn't return anything run:
   `export PATH="/home/Your_USERNAME/.dotnet/tools:$PATH"` (replace Your_USERNAME with the name of your home directory) to append `~/dotnet/tools/` to the `$PATH`.
   Then run:
   `dotnet-iqsharp install -user` (Notice the - -user flag)

3. Run the "Hello World" examples from https://docs.microsoft.com/en-us/quantum/install-guide/?view=qsharp-preview, under the "**Develop with Python**" and "**Develop with Jupyter notebooks**" sections. The files need to in a directory without other applications otherwise you may get "Access denied" errors.