Installation Instructions

This document will give you some steps on how to set up Anaconda, Python, Julia, and Jupyter Notebook on your system. Due to the wide variety of computer systems out there, these steps are not 100% guaranteed to work for everybody, but they should be a good enough guide to get you started.

Installing Anaconda, Python, and Jupyter Notebook

Anaconda is a Python distribution, which is a collection of commonly used packages, focused on scientific computing. It also comes with its own environment and package manager called `Conda`.

To install Anaconda, go here and follow the instructions for your operating system. This will do a lot of things such as

- Install Python on your system
- Install a bunch of useful Python packages for scientific computing
- Install `Conda`, which is a command line environment and package manager
- Install the `Anaconda Navigator`, which is a graphical application that allows you to easily access all the tools installed by Anaconda
- Install `Jupyter Notebook` and its more modern version `Jupyter Lab`, which is an integrated development environment (IDE) that will let you quickly write and run Python code

Once you have installed Anaconda, follow the instructions here to verify that your installation is working properly. If you are having installation issues, go here first to see if it is a common problem that has been troubleshooted already.

Once things have been installed properly, go here and follow the instructions to learn the basics of how to use the Anaconda distribution and the tools that come with it. To explore further, go here.

Installing Julia

A good alternative to the Python programming language for scientific computing is the Julia programming language. To install the Julia language onto your system, go here and follow the download instructions for your operating system. Once Julia has been installed, go here to get started with the language. Another good learning resource can be found here.

There are a couple of options for IDEs for Julia. One is the Visual Studio Code (VS Code) extension for those that already use VS Code. Another option is to follow the instructions here to set up Jupyter Notebooks to use Julia.