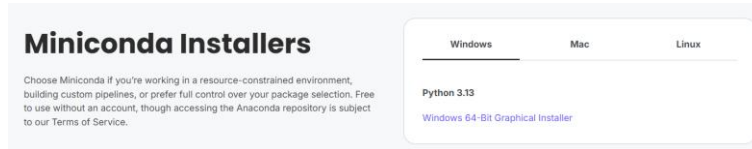
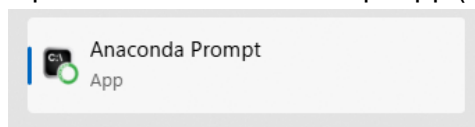


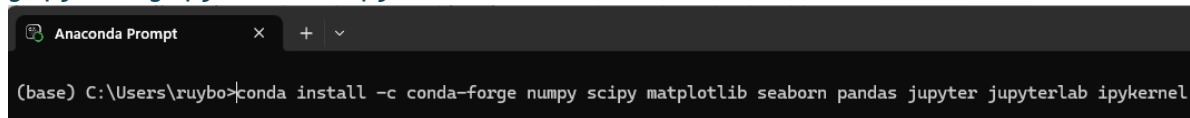
Python set up (RS Bonilla, Dec 2025)

- Install a Python Package Manager:
 - Recommended: [Anaconda](#) using the lightweight alternative [Miniconda](#) where you install every package that you need.
 - Download and install miniconda in your computer.
 - Visit: [Free Download | Anaconda](#)
 - Scroll down to:



- Install in your computer, and reboot.
- Using the Command Line (Conda):
 - After installation, open the “Anaconda Prompt” app on your computer
 - Open the Anaconda Prompt app (if on a Mac, open the Terminal)



- - Set up the basic packages required for scientific computing.
 - Run the following inside of Anaconda Prompt.
 - `conda install -c conda-forge numpy scipy matplotlib seaborn pandas jupyter jupyterlab ipykernel`
- 
- The terminal will ask for (Y/N) to download and install. Type ‘Y’ + enter.
 - Watch a couple of quick python tutorials:
 - <https://youtu.be/E9U-EBG8jVk>

Set up an Integrated development environment (IDE)

- Download VS Code: <https://code.visualstudio.com/>
- Download, run the installer and follow the default prompts.
- Watch a couple of quick python+vscode tutorials:
 - <https://youtu.be/E9U-EBG8jVk>
 - <https://youtu.be/suAkMeWJ1yE>
- Open VS Code and install key extensions (open on the left-hand side):
 - *Python* (Microsoft), *Jupyter*, *GitHub Copilot*
- Set your interpreter / compiler:
 - Python: press Ctrl+Shift+P
 - “Python: Select Interpreter”
 - Click on the base miniconda3 environment that created with the miniconda installation above, with the installed packages required.

Using Jupyter notebooks

- Learn what Jupyter notebooks are: <https://youtu.be/jZ952vChhul>
- Guide about setting up Jupyter notebooks in VS Code: <https://youtu.be/h1sAzPojKMg>
- Download and run a notebook in your own computer:
 - Find the notebook on IMAT Lecture Section: [Semiconductors Tutorials | Bonilla Lab](#)
 - Check that it runs. If you see errors, try to use ChatGPT/YouTube to troubleshoot.