

Record of Installation of Jupyter Lab in Ubuntu 20.04 on M1 Macbook Pro using Parallels Desktop

In my purchased Parallels 17 app:

Add Ubuntu 20.04.2 ARM64

Login and Change password

Install Parallels Tools as prompted

Restart

Next No Next Next Done - did not choose to send data to canonical

Run Software Updater App - Install Now

Restart Now

In terminal:

```
uname -a shows 5.4.0-81-generic
```

```
mkdir Developer
```

```
cd Developer
```

```
sudo apt update
```

From <https://github.com/conda-forge/miniforge> downloaded Miniforge3-Linux-aarch64

In terminal in Downloads bash Miniforge3-Linux-aarch64.sh

Chose to Initialise miniforge3

Restart Terminal

```
conda create -n p396 python=3.9.6
```

```
conda activate rp396
```

```
which python shows /home/parallels/miniforge3/envs/p396/bin/python
```

```
python -V shows Python 3.9.6
```

```
which pip shows /home/parallels/miniforge3/envs/p396/bin/pip
```

```
conda install -c conda-forge jupyterlab
```

```
conda install -c conda-forge PACKAGE
```

ONE AT A TIME

PACKAGES numpy sympy matplotlib pandas plotly bokeh scipy seaborn ipynb
ipyvtklink vispy vpython pyvista watermark xeus-cling r-base

From julialang.org/downloads downloaded 64bit AArch64 of v1.6.2

Unzipped tar to /home/parallels/julia-1.6.2

```
In -s /home/parallels/julia-1.6.2/bin/julia /home/parallels/miniforge3/envs/p396/bin/
```

```
julia
```

```
julia
```

```
using Pkg
```

```
Pkg.add("Julia")
```

```
Pkg.add("Plots")
```

```
Pkg.add("DifferentialEquations")
```

```
Pkg.add("StaticArrays")
```

```
Pkg.add("BoundaryValueDiffEq")
```

```
Pkg.add("OrdinaryDiffEq")
```

```
Pkg.add("Sundials")
```

```
Pkg.add("SciMLBase")
```

```
Pkg.add("Plotly")
```

```
Pkg.add("PlotlyBase")
```

```
exit()
```

From <https://nodes.org/en/downloads/current> downloaded Linux binaries ARMv8
Extract files from node-v16.8.0-Linux-arm64.tar.xz to /home/parallels/node-v16.8.0
ln -s /home/parallels/node-v16.8.0/bin/node /home/parallels/miniforge3/envs/
p396/bin/node

```
R
install.packages('IRkernel')
Selected Bristol mirror
IRkernel::installspec()
quit()
```

```
pip install octave-kernel scilab-kernel
```

```
sudo apt-get install octave
sudo apt-get install scilab
pip install gnuplot_kernel
python -m gnuplot_kernel install - -user
pip install mayavi
pip install PyQt5 jupyter_rfb
```

```
jupyter-lab build
jupyter labextension list
jupyter kernelspec list
jupyter nbextension list
jupyter-lab Verify working with test notebook Then shutdown
```

```
jupyter nbextension install --py mayavi
jupyter nbextension enable --py mayavi
```

```
sudo apt install code
code
Installed my VScode additions
```