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# Working with R at CHPC

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# Working with R

- Interactive use from the shell (ssh or FastX):
  - RStudio integrated development environment session:

```
$ module load R/3.6.1 RStudio/1.1.463
$ rstudio
```
  - Regular R interpreter:

```
$ module load R/3.6.1
$ R
```
- Interactive use via OnDemand:
  - Run Rstudio session
  - <https://ondemand.chcp.utah.edu> -> Interactive Apps
  - Can also run R kernel within each cell of Jupyter notebook
- Non-interactive use within a SLURM script: Regular R interpreter

```
module load R/3.6.3
Rscript my_script_name.R
```



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# Which distribution / version of R to use?

- Rstudio – integrated development environment for R
  - Rstudio uses the version of R you have loaded
  - \$ module load R/3.6.1 Rstudio/1.1.463
  - \$ rstudio
- CHPC-installed “standard” distributions of R

```
$ module spider R
$ module load python/3.6.1
$ which R
/uufs/chpc.utah.edu/sys/installdir/R/3.6.1i/bin/R
```
- Loaded R kernel via jupyter notebook

# Using R libraries

- A library you need may already be installed – try to import it:

```
>>> library(DESeq2)
>>> sklearn.__file__
/uufs/chpc.utah.edu/sys/installdir/anaconda3/2019.03/lib/python3.7/...
```

- You can install your own using “install.packages()”
  - This installs under your home directory in \$HOME/Rlibs or \$HOME/R



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R example...