

1. Connect to umich wifi or connect to umich vpn if you're off-campus  
Vpn link: <https://its.umich.edu/enterprise/wifi-networks/vpn/getting-started>
2. Log into <https://greatlakes.arc-ts.umich.edu/pun/sys/dashboard>
3. Upload / update revised R scripts /data folders onto the home directory
4. Create sh file for running the R script  
(see example sh file:  
[https://drive.google.com/file/d/1IWJyiDKK\\_A2mwO3qtgzYqExOQpZWcrfb/view?usp=sharing](https://drive.google.com/file/d/1IWJyiDKK_A2mwO3qtgzYqExOQpZWcrfb/view?usp=sharing))

Change the following accordingly

```
#SBATCH --job-name=Rbatch
```

```
#SBATCH --nodes=1
```

```
#SBATCH --ntasks-per-node=1
```

```
#SBATCH --cpus-per-task=36
```

```
#SBATCH --mem-per-cpu=5g
```

```
#SBATCH --time=3-00:00:00
```

```
#SBATCH --account=johanngb0
```

```
#SBATCH --partition=standard
```

```
#SBATCH --mail-user=jiayingw@umich.edu
```

```
#SBATCH --mail-type=BEGIN,END
```

```
R CMD BATCH --no-restore --no-save --quiet missforest_full.R  
Rbatch.out
```

(see for reference: [https://github.com/SchlossLab/Great\\_Lakes\\_SLURM](https://github.com/SchlossLab/Great_Lakes_SLURM))

If queued for a long time, reduce cpus-per-task

How to create the file?

- a. Open TextEdit and create a new file
- b. Convert it to plain text by clicking Format > Make Plain Text
- c. Add your commands, one per line. For example, you could do:  
#!/bin/bash  
cd ~/Desktop  
mkdir myCoolFolder

Change SBATCH variables:

- Set longer run time limit: Use the SLURM time format, eg. for 8 days 15 hours: TimeLimit=8-15:00:00
- For faster: cpus-per-task=36 (max = 36)

5. Upload sh / txt file to home directory

6. Open terminal, type in ssh [your\\_username@greatlakes.arc-ts.umich.edu](https://your_username@greatlakes.arc-ts.umich.edu) and log onto great lakes
7. module load "python3.9-anaconda/2021.11"
8. module load R
9. R
10. Install.packages('package name') → 79. If cannot install, type this line first  
options(repos="https://CRAN.R-project.org")

(install all packages needed in the script)

11. quit() [save workspace so that don't need reinstall next time]
12. Cd to script folder
13. sbatch filename.sh/txt
14. See output "Rbatch.out" in great lakes folder  
If see identical output, log out on both website and terminal and retry