

Introduction to Kamiak

Follow Along

Logging in to Kamiak

Terminal >> New Window (for Windows, Start >> Ubuntu)
ssh *your.name*@kamiak.wsu.edu

Transferring Files to and from Kamiak

Copy from Kamiak to your laptop

Terminal >> New Window (for Windows, Start >> Ubuntu)
scp -r *your.name*@kamiak.wsu.edu:/opt/apps/samples/training .
ls -l training

Copy from your laptop to Kamiak

scp -r training *your.name*@kamiak.wsu.edu:~/

Synchronize

rsync -ravx training/ *your.name*@kamiak.wsu.edu:~/training

Submitting Batch Jobs to Kamiak

Log into Kamiak

ssh *your.name*@kamiak.wsu.edu

Setup only for this training

cd training
. setup.sh

Create/edit a job script

cat myJob.sh

Submit the job script

sbatch myJob.sh # To test: sbatch --test-only myJob.sh

View the job queue

squeue -u *your.name* # Shows pending and running jobs
squeue -j *jobNumber*

See output

cat myJob*.out

Cancel the job

```
scancel jobNumber
```

View job history and details

```
sacct -S 2/25/19 -u your.name      # Past job history  
scontrol show job jobNumber      # Job details
```

Viewing Information about the Cluster

What partitions and nodes are available

```
sinfo -a | more      # Availability (alloc, idle, mix)
```

View all running and queued jobs

```
squeue -a | more      # Queued jobs for all partitions
```

View node details

```
scontrol show node cn93      # Amount of memory, cpus, GPUs
```

Interactive Jobs

```
idev -N 1 --ntasks-per-node=2 -t 360  
module avail  
module load python/2.7.15  
module list  
python -i  
    print "Hello World!"  
    exit()  
srun -l python helloWorld.py  
exit
```

Job Arrays

```
cat jobArray.sh
sbatch jobArray.sh
squeue -u your.name
cat output/myJobArray*.out
scancel jobNumber
```

Using Available Software on Kamiak

```
module avail python3      # See available python3 modules
module load python3       # Load latest version
module list               # See loaded modules
module unload python3     # Unload a module
module load python3/3.4.3 # Load specific version (recommended)
module list               # See loaded modules
module avail              # Available modules compatible with compiler
module spider             # See all modules
module whatis anaconda3   # See what a module does
module help anaconda3     # See help for a module
which python3             # See that python is in your path
printenv PATH             # See effects of loading modules
printenv LD_LIBRARY_PATH
```

Using Scratch Storage

```
export myscratch = "$(mkworkspace -q)"
echo $myscratch
export myscratch = "$(mkworkspace -q -b /local)"
echo $myscratch
```

Getting Help

```
hpc.wsu.edu                Support & Drop-in Hours
hpc.wsu.edu/cheat-sheet    User's Guide / Kamiak Cheat Sheet
hpc.wsu.edu/training/slides
hpc.wsu.edu/training/follow-along
```