Introduction to Kamiak
Follow Along

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 .
l$ -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

Logging in to Kamiak

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

Submitting Batch Jobs to Kamiak

**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 2/26/20 -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**

```bash
idev -N 1 --ntasks=1 --cpus-per-task=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="$(mkworkspace)"
export myscratch="$(mkworkspace -b /local)"
lsworkspace

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