Nano cluster

System Description

Host name: nano.ncsa.illinois.edu

Hardware

- SuperMicro SYS-4028GR-TR
  - X10DRG-O++ CPU motherboard
  - 128 GB DDR4 (8x 16 GB Micron 2133 MHz 36ASF2G72PZ-2G1A2)
  - 8 PCI-E 3.0 ports, switched
- Mellanox MT27500 Family [ConnectX-3] QDR IB
- 1x 256 GB Samsung SSD 850

Software

- CentOS 7
- CUDA 9.2/10.0
- PGI 16.10
- Intel ICC 16
- gcc 4.8
- gcc 5.3 via 'scl enable devtoolset-4 bash'

DL frameworks

- TensorFlow 1.10

Node configuration (see login message for the exact configuration):

<table>
<thead>
<tr>
<th>nano1</th>
<th>nano2</th>
<th>nano3</th>
<th>nano4</th>
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<tbody>
<tr>
<td>2x Intel Xeon CPU E5-2620 v3 @ 2.40 GHz</td>
<td>2x Intel Xeon CPU E5-2620 v4 @ 2.40 GHz</td>
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Contact us

Request access to ISL resources:
Application
Contact ISL staff: Email Address
Visit: NCSA, room 3050E

Instructions for running Jupyter Notebooks on compute nodes

Usage notes:

- nano (141.142.204.5) is the head node of the cluster, it should not be used for any computations!
- to connect to the cluster, ssh username@nano.ncsa.illinois.edu
- to get access to a particular node for interactive use, use qsub, e.g.,
  - to get one GPU and one CPU core on node 7 for 1 hour for interactive use:
    - qsub -I -l nodes=nano7:ppn=1:gpu=1, walltime=3600
  - to get entire node 1 for 1 hour for exclusive interactive use:
    - qsub -I -l nodes=nano1:ppn=12, walltime=3600
- better yet, do not allocate nodes for interactive use, instead just submit batch jobs, see for example Job Scripts section at https://kb.iu.edu/d/3QVrDiFmz/nano-status

Interactive jobs are limited to 12 hours maximum walltime per job.
Batch jobs are limited to 96 hours
Submit request to staff for longer batch jobs (up to 240 hours)
To see what’s running on the cluster, just run qstat
This is a shared resource, please keep in mind that other users are using it as well; do not take over the system beyond what you really need.
Home directory is cross-mounted and accessible from all nodes
Current System Status: https://nano.ncsa.illinois.edu:3000/d/3QVrDiFmz/nano-status