

# Kingfisher cluster

## System Description

Hostname: kingfisher.ncsa.illinois.edu

Hardware:

- 5x Dell R730 server
  - 2x Intel Xeon E5-2698v4 (20-core @ 2.20GHz-3.60GHz)
  - 256GB DDR4 RAM
  - 1x NVIDIA Tesla K80
    - 2x 2496 CUDA Cores (Dual GPU design)
    - 2x 12GB GDDR5
  - Mellanox ConnectX-4 InfiniBand EDR 100Gb/s
  - Intel X520 10Gb/s Ethernet SFP+
  - 400GB Intel SSD
- 5x 800GB Intel SSD in RAID 5 on chief1 as shared home
- 1x Mellanox SB7890 100Gb/s InfiniBand EDR switch
- 1x Dell 10GbE SFP+ switch (currently unused)
- 1x 1GbE switch as internal management network
- 2x Geist RCXRN102-102D20TL5-D PDU with monitor capabilities

\*Temporary config for ongoing RoCE testing:

- ConnectX-4 adapters are set to Ethernet mode
- 100GbE switch



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## Usage

- Access to the system is restricted to the University of Illinois Student Cluster Competition Team. Visit <https://studentcluster.ncsa.illinois.edu/> to learn more about the team.
- To run jobs on the system, use the slurm system. Direct SSH access to compute nodes has been blocked.
  - <add slurm usage notes>