



# UMD/Nvidia GPU Summit

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# Cyberinfrastructure Center in the University Research Park





# Depththought2





# Deeptthought2 Configuration

- 300 Teraflops peak (theoretical) performance
- 62 DELL C8000 chassis containing a mix of C8220 CPU-only nodes and C8220X CPU/GPU nodes
- 416 CPU-only nodes (dual Intel E5-2680v2 CPUs at 2.8GHz, 10 cores per CPU)
- 9200 total Xeon cores
- 40 CPU/GPU nodes (2 nVidia K20 GPUs per node)
- Each K20 GPU has 5GB RAM, 2496 CUDA cores, 1.17TF double precision floating point performance
- 200,000 total nVidia cores
- 128GB RAM per node (6.4GB per core)
- 4 large-memory nodes (quad Intel E5-4640 CPUs at 2.2GHz, 10 cores per CPU) with 1TB RAM each
- 1 Petabyte of Lustre storage (20GB/second aggregate throughput)
- FDR (56 Gigabit) Infiniband networking, configured as 2:1 blocking
- Power consumption 250kW, 12 racks



# Deepthought2 on Campus

- HPC Boot Camp
- Lecture series in advanced computing and Visualization
- Matching visualization hardware grants
- Curriculum use of Deepthought2
- Free Deepthought2 allocations based on merit of proposals



# Enjoy the Summit