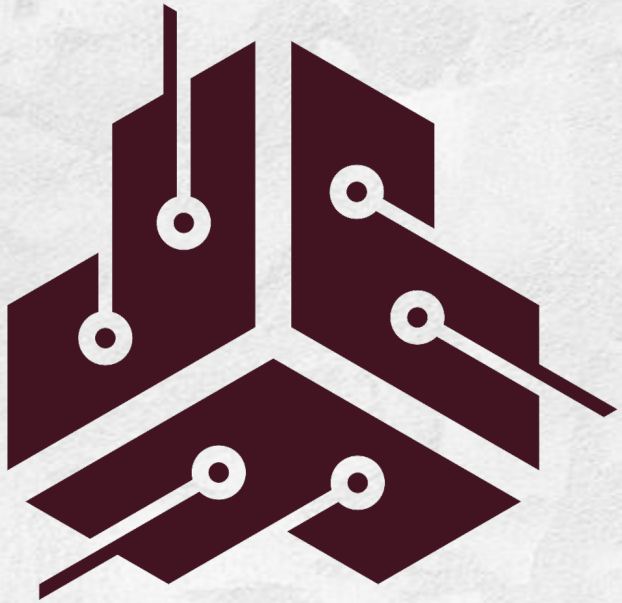


HPC CLUB

HIGH PERFORMANCE COMPUTING CLUB

Mississippi HPC Conference 2024

MISSISSIPPI STATE UNIVERSITY

History education Research community Tradition pride

HPC²

Goals of the HPC Club

- The primary goal of the HPC Club is to foster interest in High Performance and Parallel computing among all majors at MSU.
- The HPC Club also serves to provide opportunities for students to participate in the HPC community.
- Finally, the HPC Club provides basic training on skills needed in the HPC community.

Prometheus

Prometheus is a Raspberry Pi cluster built by the HPC Club as an inexpensive learning model.

Total Compute
32 Cores, 32 GB RAM,
500 GB Parallel Storage,
50 GB Shared Storage

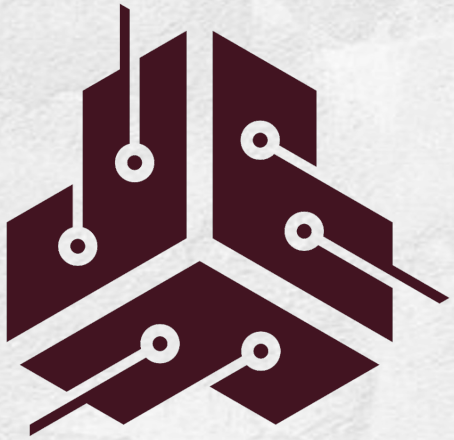
- Head Node
  - Raspberry Pi 4 B
    - Quad core Cortex-A72
    - 4 GB RAM
    - 120 GB SSD
- 8 Compute Nodes
  - Raspberry Pi 4 B
    - Quad core Cortex-A72
    - 4 GB RAM
- 4 Storage Nodes
  - Raspberry Pi 4 B
    - Quad core Cortex-A72
    - 4 GB RAM
    - 250 GB SSD
      - Replicated GlusterFS

PI HPC

https://j3b.in/pihpc

PI HPC is intended on providing a guide on how to setup a Raspberry Pi cluster and a repository of resources for configuration and demonstration for this cluster.

It is a jumping-off point where students and instructors can further explore cluster computing at their own pace.



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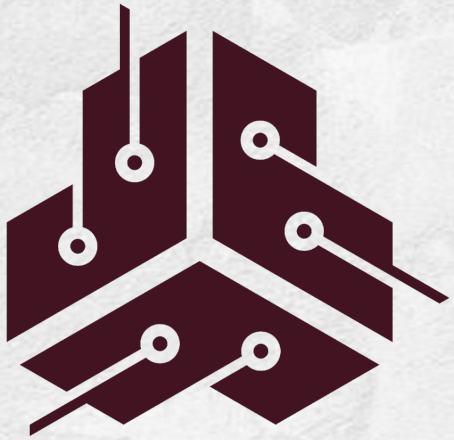
Cluster Demonstration



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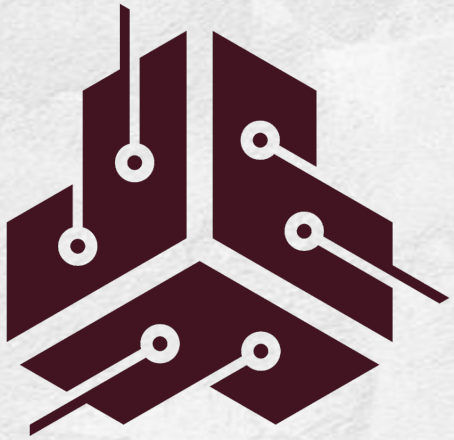
Questions?



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Thank You