

Student Assistant Project: Real-time Dashboard for HPC Activities

Description:

On the High Performance Computer HSUper, Slurm is used as a job scheduling system. While it gives every user via the command line information about the current status of jobs and job queues, we would like to have a Grafana based dashboard showing current information regarding the workload (overall, per partition) utilizing SLURM's REST API.

Prerequisites:

Linux and HPC affinity

Experiences with Grafana based stacks and time series databases favorable

Contact:

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References:

Existing Slurm Exporter for Prometheus: <https://github.com/vpenso/prometheus-slurm-exporter/issues/88#issuecomment-1360144136>

Grafana Slurm Dashboard Example:

<https://grafana.com/grafana/dashboards/4323-slurm-dashboard/>

Implementation Example:

<https://github.com/NVIDIA/deepops/blob/master/docs/slurm-cluster/slurm-monitor.md>

Example Fugaku: <https://status.fugaku.r-ccs.riken.jp/d/fugaku/0-operation-status-of-fugaku>