

# Gathering Job and Environment Information in SLURM + MPI Cluster

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## **Abstract**

To allow middleware to make better decisions many information of relevant to the current job (such as available memory, node count, number of cores, node local storage and number of processes) on a supercomputer need to be taken into account. As part of this thesis you would design and implement a lightweight library in C, learn best practices about low-level system programming and develop an in-dept understanding of different software (e.g., SLURM, MPI) that enable supercomputing.