

30 credits – Could SPARK be used instead of mpi?**Ingress:**

Thesis project at Scania is an excellent way of making contacts for your future working life. Many of our current employees started their career with a thesis project.

Background:

MPI is the dominant method of doing message-passing and data exchange within HPC applications. The development of “Spark” is a novel method of performing distributed computing which we would like to investigate its applicability within HPC.

Target:

The student tries to address a few number of well known parallel computing problems/algorithms and compares this with MPI. Evaluation of the results are done and presented.

Assignment:

A few algorithms are selected and implemented with “Spark” in scala, python or java (depending on student preferences).
The implementations are benchmarked and code peer-reviewed.
Finally, a paper is published.

Education:

Discipline: Computer Science
Students: 1-2
Start date: January 2016
Estimated time needed: 4-5 month

Contact persons and supervisors:

Fredrik Hurtig, Group Manager, Scania IT, ITBZ, phone: 08 553 856 09
Erik Lönroth, Technical Responsible, Scania IT, ITBZ, phone: 08 553 527 21

Application:

Enclose CV, personal letter and school-leaving certificate.

Publication date from - until

2015-10-02—2015-10-31

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