



BA/SA/Group/Lab:

Real-time Memory Pooling

Imagine an analytics firm that needs to analyze a huge social network. This needs to be done on a cluster of machines because the amount of memory on a single machine is not enough. Fortunately, recent advances in memory technologies, like RDMA and disaggregated memory, enable a machine to access the unused memory of another machine in a cluster.

In this thesis, we want to theoretically analyze the benefit of these new technologies and develop efficient algorithms for memory pooling under different conditions. We already have some ideas to start with but your ideas are always welcome.

Requirements: Interest in designing and analyzing online algorithms and using your favorite programming language to simulate and test hypothesis.

Interested? Please contact us for more details!

Contacts

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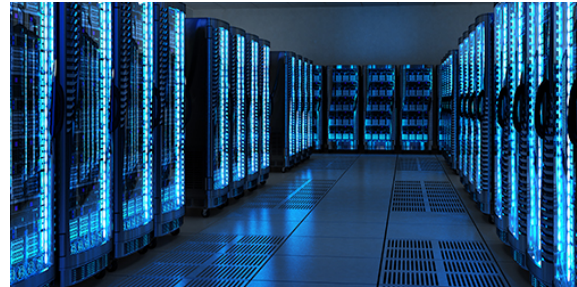


Figure 1: Memories