

Name: Tanmay Kamblakar Shingde

PRN: 22610059

The performance analysis of MPI matrix multiplication algorithm using intel xtune profiler, reveals several key insights. The MPI communication overhead, particularly from MPI-Bcast and MPI-Gather operations, contributes significantly to total runtime, which suggests optimizing the data distribution and reducing communication frequency. Effective core utilization shows some instances, with certain processes being underutilized, likely due to ~~even~~ uneven workload distribution. Memory bandwidth utilization also indicates potential inefficiencies, which cache misses causing delays.

While it is very difficult to install intel xtune profiler.