

4.1 Undergraduate Assignment

Undergraduates are to implement the non-memory scalable version and the low scalability version of the nearest neighbors algorithm (the first two parallel algorithms discussed in this document). In addition to implementing and measuring the performance and scalability of these algorithms, undergraduates are expected to perform a scalability analysis of these algorithms. A discussion of the approach, analysis, experimental results, and conclusions should be documented in a project report.

4.2 Graduate Assignment

Graduate students, in addition to performing the undergraduate part of the assignment, will implement the scalable nearest neighbors algorithm. In addition, graduate students must provide a scalability analysis of this algorithm. A discussion of the approach, analysis, experimental results, and conclusions should be documented in a project report.