Assignment 11 Report

High Performance Computing

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1. Create an interface to the Fortran searchutils.f90 using f2py.

Evaluate the CPU time of the Fortran search algorithm calls using a large array of values against numpy's searchsorted and numpy

- Create a document with a table showing the performance of the different implementations

Search Type	CPU Time (seconds)
Linear (Fortran)	0.010589122772216797
Binary (Fortran)	0.010595560073852539
Numpy (SortedSearch)	0.010623693466186523
Numpy (Native)	0.0198056697845459

2. Create an interface to the lapack DSYSV function.

- Write a small document with the difference in CPU times of both solvers.

Solver Type	CPU Time (seconds)
linalg_symm.py	2.200225115
linalg_solve.py	0.799071312