**Requirements**

The tool uses artificial intelligence to find an optimum schedule across multiple processors. The tool will be built such that speed is the primary concern. I.e. if there are conflicts between other factors and speed, speed should be chosen. The system runs on Linux and Windows and is well documented.

Users communicate primarily through a command line interface (CLI). The CLI takes a .dot file and the number of processors as input. The CLI will also take the number of cores, a flag for visualizations and a name for an output file as optional arguments. The output will be a copy of the input with two added attributes for each task: start time and allocated processor.

When the visualization flag is used a graphical user interface with several visualizations is displayed. These visualizations are informative and elegantly presented. They give information related to the tools progress. This includes search space, a graphical representation of the optimal solution and any relevant intermediate data.

All third-party libraries used have appropriate licensing.

The project must be completed within a 6-week timeframe.