

Amended timescale for PhD

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1 Project Timeline:

Due to numerous complications and delays in my study, a revised timeline until PhD completion has been compiled. The revised submission date for the PhD Thesis has been made for August 2021. You can see a progression diagram and a table schedule of new projected timeline below.

1.1 Description of Project Phases:

Phase 1: Design of Minimax algorithm variants:

The first phase would design an Minimax algorithm with sequential and parallel variants, measure and compare the speed up achieved between them, then tuning algorithms to see if this speed up can be improved.

Phase 2: Fitting Minimax into a larger game scenario:

The second phase would look to embed the above algorithm in larger logic game, and perform an experiment to observe how it performs with complexer decisions to make.

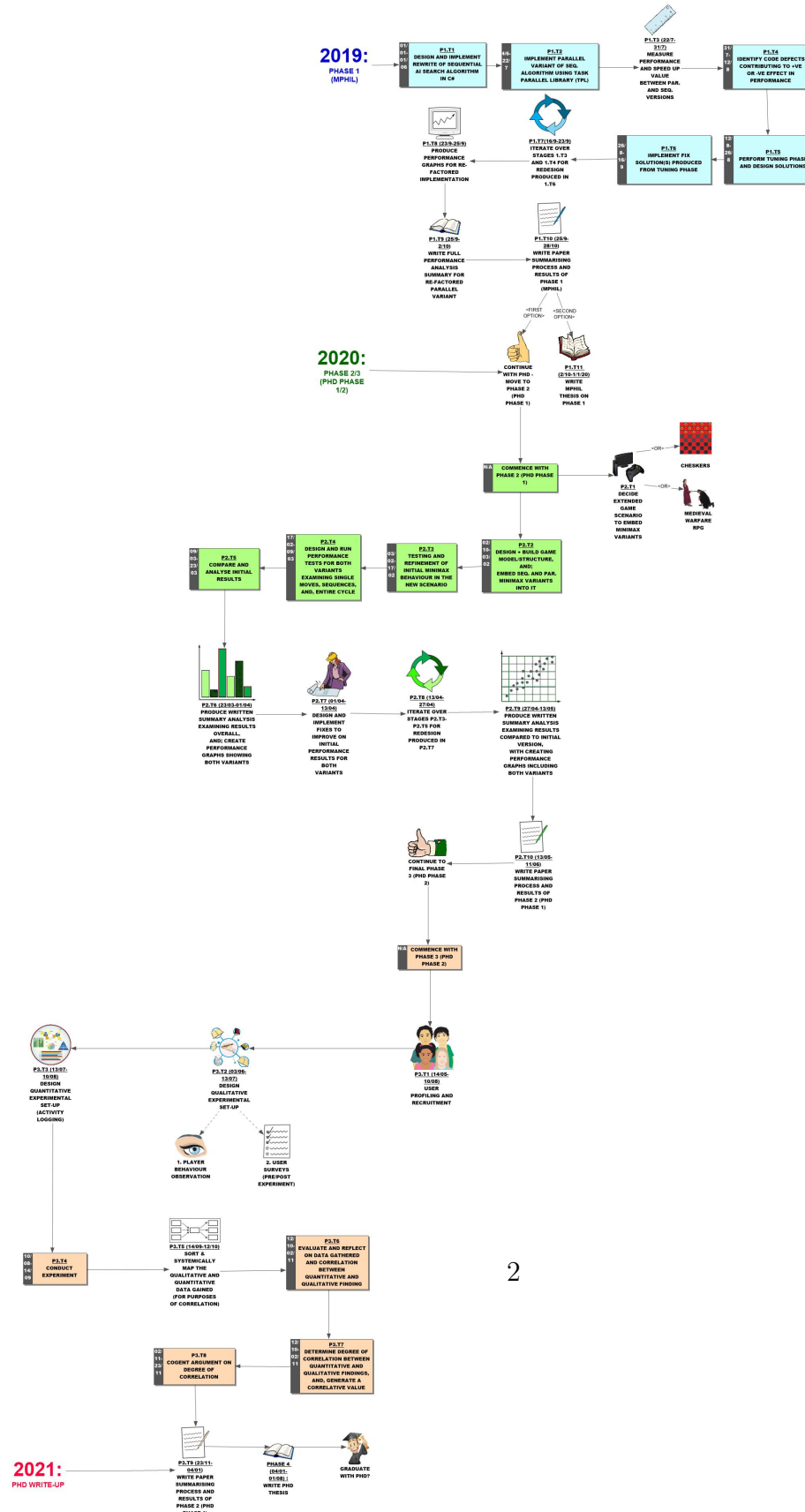
Phase 3: Determining degree of Correlation between two factors:

The third phase will look to conduct experiment that would assess degree of correlation between 1) the increased performance of an AI search gained through parallelism (in Phase 2), and 2) a player's view of increased engagement in gameplay (assessed in Phase 3).

Phase 4: Write-up:

The final stage will be to write up and sum the whole research, and aim to cogent an argument to prove or disapprove a correlation between 1) the increased performance of an AI search gained through parallelism, and 2) a player's view of increased engagement in gameplay.

1.2 Full revised project timeline represented as a progression diagram:



1.3 Full revised project timeline represented in table format:

A full table of contents embodying the projected work schedule is presented below.

P	NO.	TASK	START	END
1	T1	Design and build rewrite of seq. MiniMax	01-01-19	01-06-19
1	T2	Implement TPL parallel variant of seq. Minimax	04-06-19	22-07-19
1	T3	Measure performance between par. and seq. variants	22-07-19	31-07-19
1	T4	Identify defects giving +VE or -VE effect on performance	31-07-19	12-08-19
1	T5	Perform tuning phase and design solutions	12-08-19	26-08-19
1	T6	Implement fix solution(s) gathered in tuning phase	26-08-19	16-09-19
1	T7	Iterate over tasks T3 and T4 for T6 re-factored algorithm	16-09-19	23-09-19
1	T8	Produce performance graphs for re-factored implementation	23-09-19	25-09-19
1	T9	Write performance analysis for re-factored parallel variant	25-09-19	02-10-19
1	T10	Write paper summarising process and results of phase	25-09-19	28-10-19
2	T1	Decide extended game scenario to embed Minimax variants in	23-09-19	07-10-19
2	T2	Design/build game-model + embed Minimax variants within	02-10-19	03-02-20
2	T3	Testing and refinement of Minimax in new scenario	03-02-20	17-02-20
2	T4	Performance testing for both variants	17-02-20	09-03-20
2	T5	Compare and analyse initial results	09-03-20	23-03-20
2	T6	Write performance analysis summary with speed-up graphs	23-03-20	01-04-20
2	T7	Design and build fixes to improve on initial performance results	01-04-20	13-04-20
2	T8	Iterate over T3-T6 for T7 re-factored version	13-04-20	27-04-20
2	T9	Write re-factored performance analysis with speed-up graphs	27-04-20	13-05-20
2	T10	Write paper summarising process and results of phase	13-05-20	11-06-20
3	T1	User Profiling and Recruitment	14-05-20	10-08-20
3	T2	Design Qualitative experiment set-up	03-06-20	13-07-20
3	T3	Design Quantitative experiment set-up (activity logging)	13-07-20	10-08-20
3	T4	Conduct experiment	10-08-20	14-09-20
3	T5	Systemically map the qualitative and quantitative data gained	14-09-20	12-10-20
3	T6	Evaluate data + correlations between quant. and qual. findings	12-10-20	02-11-20
3	T7	Generate correlative value between quant. and qual. findings	12-10-20	02-11-20
3	T8	Cogent argument on degree of correlation	02-11-20	23-11-20
3	T9	Write paper summarising process and results of phase	23-11-20	04-01-21
4	T10	Write PhD Thesis	04-01-21	01-08-21

Table 1: Projected PhD work schedule for remaining work packets

The following citation referring to the template used to create this document. [1].

References

- [1] J. Y. Gil. $\text{\LaTeX} 2_{\varepsilon}$ for graduate students. manuscript, Haifa, Israel, 2002.