

CAPSTONE PROJECT 1
Activity Log

**Evaluation of Nature-inspired Optimisation
Algorithms in Solving Versus Tetris**

by

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Date:

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1 Timeline

In this chapter, the project’s progression is meticulously documented. In these pages, the critical stages of the project are depicted, each accompanied by a concise description illuminating the strategies and rationales behind the allocated times.

Furthermore, the week-by-week tasks undertaken are outlined within these sections. Thus, offering a granular insight into the day-to-day endeavours taken to propel the project towards its culmination.

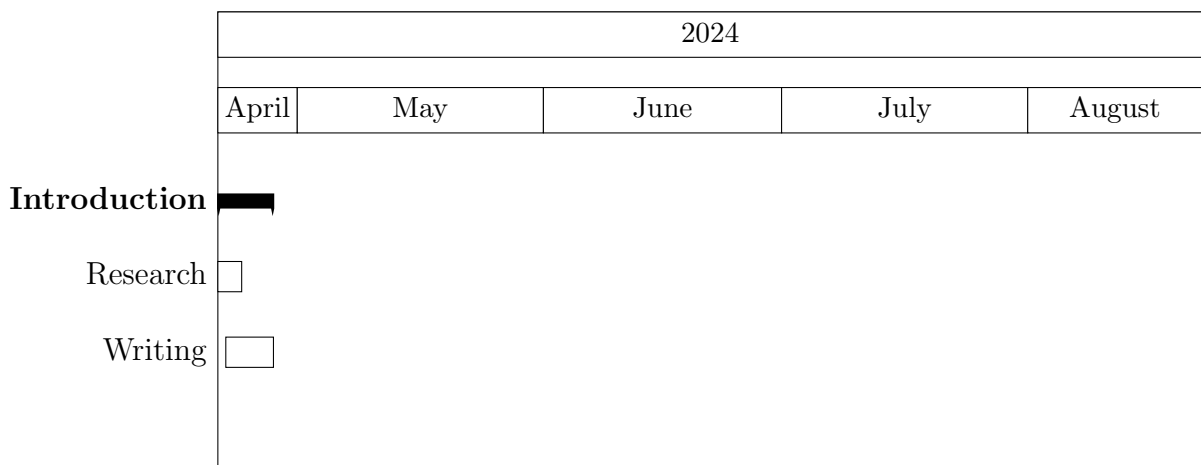


Figure 1.1: Gantt Chart of Timeline

1.1 Writing an Introduction

The introduction serves as the project’s foundation, providing essential background information, introducing the topic, and articulating the project’s objectives. Recognizing its pivotal role, **one week** of time was allocated for its composition. This deliberate time-frame aimed to allow ample time for thoroughness, ensuring no essential elements were overlooked in writing a comprehensive and compelling introduction.

1.1.1 Week 1

1.1.2 Week 2

1.2 Conducting the Literature Review

1.2.1 Week 1

1.3 Coming Up With a Technical Plan

1.4 Making Revisions

2 Bibliography

- [1] Tetris Inc., *About Tetris*, <https://tetris.com/about-us>, [accessed Apr. 22, 2024].

In this webpage, the game of Tetris is described as an addictive puzzle game, there are references to some rules of the game, which includes the clearing of lines and the losing condition. There is also a section on the creator of Tetris as well as a section on the psychological event deemed the 'Tetris Effect'. As this is the 'About Us' page of the official Tetris website, this is treated as a credible source. This source will be used to introduce the Tetris game. It gives readers a good amount of information without being too overwhelming.

- [2] E. D. Demaine, S. Hohenberger, and D. Liben-Nowell, "Tetris is hard, even to approximate," in *Computing and Combinatorics*, T. Warnow and B. Zhu, Eds., Berlin, Heidelberg: Springer Berlin Heidelberg, 2003, pp. 351–363, ISBN: 978-3-540-45071-9.
- [3] J. Brzustowski, "Can you win at tetris?" Ph.D. dissertation, University of Waterloo, 1988.
- [4] H. Burgiel, "How to lose at tetris," *The Mathematical Gazette*, vol. 81, no. 491, pp. 194–200, 1997. DOI: 10.2307/3619195.

3 Meeting Records

SCHOOL OF ENGINEERING AND TECHNOLOGY
DEPARTMENT OF COMPUTING AND INFORMATION SYSTEMS

SUPERVISION MEETING RECORD

Meeting 1

Date: 22 April 2024

Time: 05:00 pm - 06:00 pm

Student: Yap Wei Xiang

Supervisor: Dr Richard Wong Teck Ken

Items Discussed this Meeting:

- The 'Introduction' chapter of the planning document was discussed.
 - ❖ Focus more on using academic language instead of using fancy words.
 - ❖ Try to find a better motivation for the project, find real world problems that are semi-parallel to the game or find a way to fit NP-completeness into the picture.

Work for the Coming Meeting:

- Make necessary adjustments to the Introduction.
- Complete Introduction.
- Start reading literature.

Supervisor Signature:

Student's Signature:

