

# Portfolio Proposal

COMP320 Dissertation

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October 17, 2017

## 1 Notes:

Which tree search technique performs best for different game categories?

Comparison of the sample AI controllers in GVGAI. - Which perform best in which category of game?

Comparing game tree search techniques for general videogame AI (GVGAI) PCG different game puzzles and see which tree search techniques perform the best in different areas.

Different search techniques: Depth first search MCTS Breadth first search Rolling horizon Evolutionary Algorithm MCTS/EA hybrid

Analysis of GVGAI's location, tracking where they spend most of their time in a level. Analysis of GVGAI in a PCG level and figure out where they spend their time / where they die most often.

From that propose the two controllers that could work well as a hybrid?

## 2 Research Questions:

How does game tree search techniques compare for GVGAI? Where does GVGAI succeed best in set games? What are the most challenging areas for GVGAI in the GVGAI competition? Where does each tree search technique do well in?(vague)

Using game tree search techniques to compare the level difficulty for each game. (Work out what techniques are good at some aspects of a game's level, and others are better at others.)