

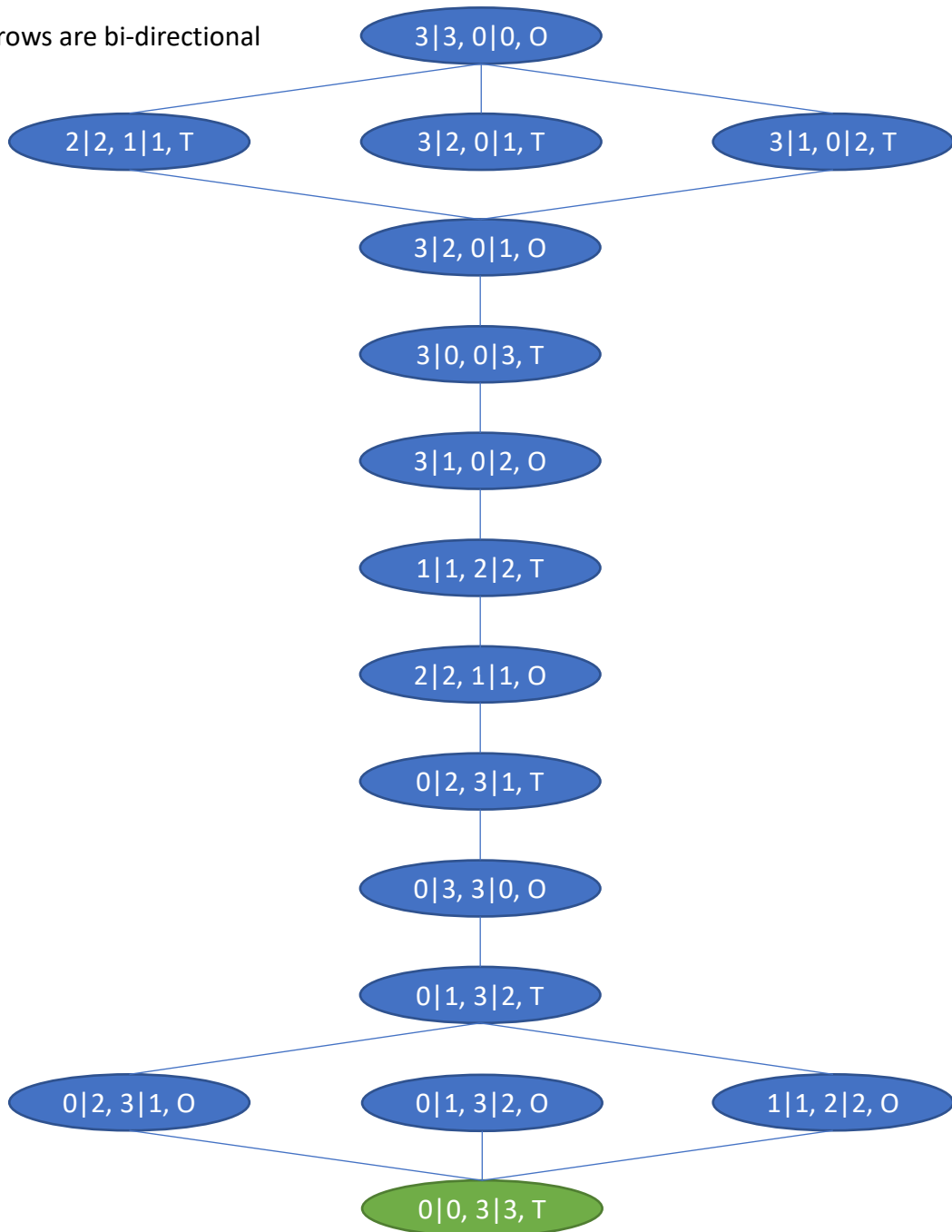
3a.

Legend:

Origin, Target, Boat Pos

Missionaries | Cannibals

All arrows are bi-directional



3b. It is a good idea to check for repeated states. All edges in the graph are bi-directional so it is conceivable for a model to get stuck in an infinite loop without checking for duplicates. However, due to the small state space this can be ignored for smarter search algorithms like A\* which take the full path traveled into account.