

# Deep reinforced learning for the board game Dominion

An assignment for the course AI tools

written by

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The code for this project is available at

when the code is public put the github link in the curly brackets

[https://gitlab.sdu.dk/sdurobotics/medical/student-projects/2023/Peter\\_Duc\\_Bachelor\\_NLP](https://gitlab.sdu.dk/sdurobotics/medical/student-projects/2023/Peter_Duc_Bachelor_NLP)

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Date of Hand In 31. of May

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## Chapter 1

# Project specification

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In this segment the specified assignment is explained. Both the general and the specification made by the student. Furthermore, all problem tasks will be listed. (Creating a dominion engine for the AI, determining, designing and creating the AI agent that must play the game, Implementing a deep learning approach for the Q-table, and finally, evaluation criteria for the AI agent, that will be used)

### 1.1 Problem constraint

This section is dedicated to constraints that must be states about the agent that is created. Cant think of any constraints at the moment, but there might be some

## Chapter 2

# **Task: Creating a dominion engine suited for a RL agent**

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## Chapter 3

# **Task: choosing and creating RL agents**

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## Chapter 4

# **Task: implementing a neural network Q-table**

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## Chapter 5

### **Task: Training scheme**

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Chapter 6

## **evaluation**

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## Chapter 7

# Discussion

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Chapter 8

## **Conclusion**

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## Chapter 9

# **Future work**

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## Bibliography

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