

# 1 Algorithms

Things i will include here:

- List of Algorithms we spoke about with their complexity
- List of problems we talked about and their NP class, and any approximations that could be found
- Intuitions behind proofs and algorithms in order to understand them better
- Different design approaches and what examples we used in class, to remember them better

# 2 Reinforcement Learning

Things to be included here, this might be in a separate pdf in order to be printed. For each chapter, there will be the algorithms written succinctly and their comparison with other stuff and a bit of discussion on their usage. Also exercises will be worked on and compared with existing solutions.

## 2.1 Multi-armed Bandits

## 2.2 Finite Markov Decision Processes

## 2.3 Dynamic Programming

## 2.4 Monte Carlo Methods

## 2.5 Temporal-Difference Learning