Home Work #4

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1 Solving Maze with Temporal Difference Learning

1.1 Calculating Value function using TD method

In this section, we are going to calculate the value function for the given maze using TD method. The value function is calculated using the following formula:

$$V(s) = V(s) + \alpha[r + \gamma V(s') - V(s)] \tag{1}$$

Where α is the learning rate, γ is the discount factor, r is the reward and s' is the next state. The value function is calculated for each state and the results are shown in the following table:
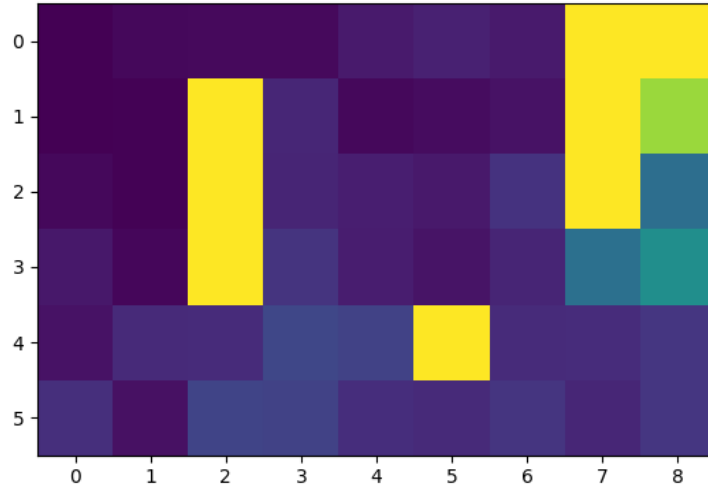

Figure 1: Value function for each state