MAC0425 - Inteligência Artificial

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November 9, 2017

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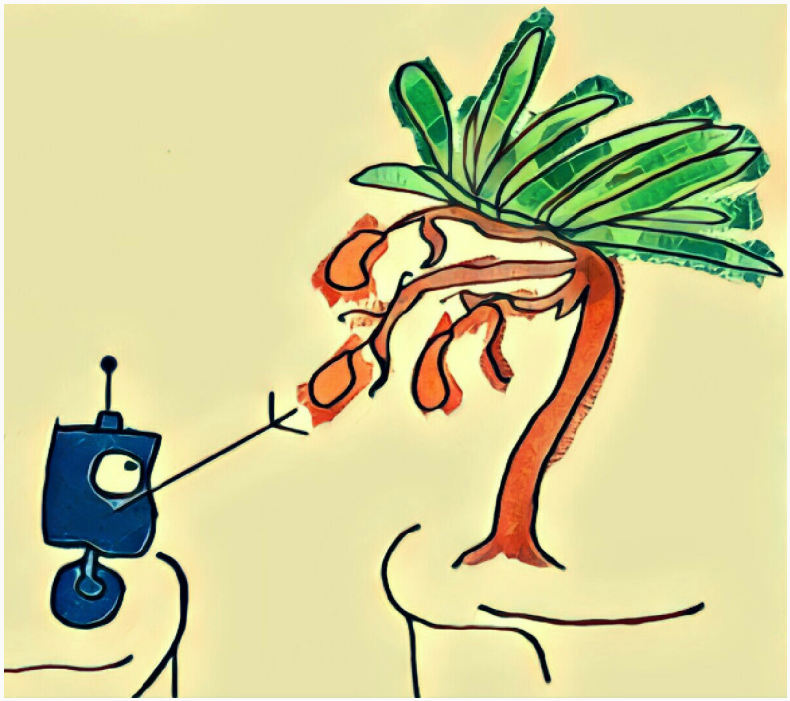
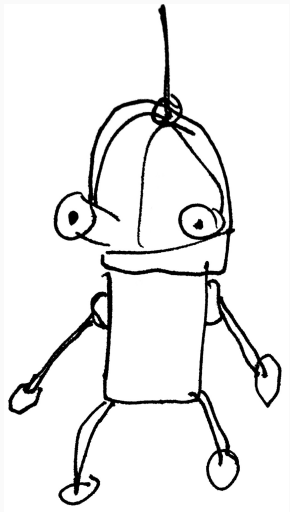
Artificial Intelligence



Reinforcement Learning schema



Agent

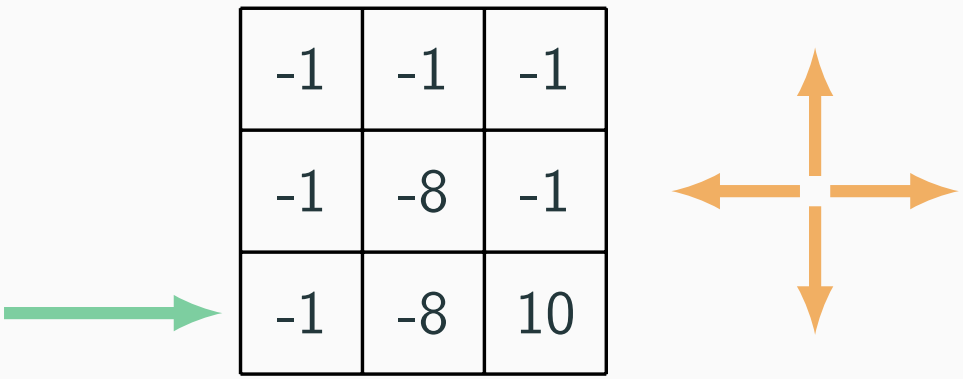
action

reward

Environment

state

Q-learning



states and rewards

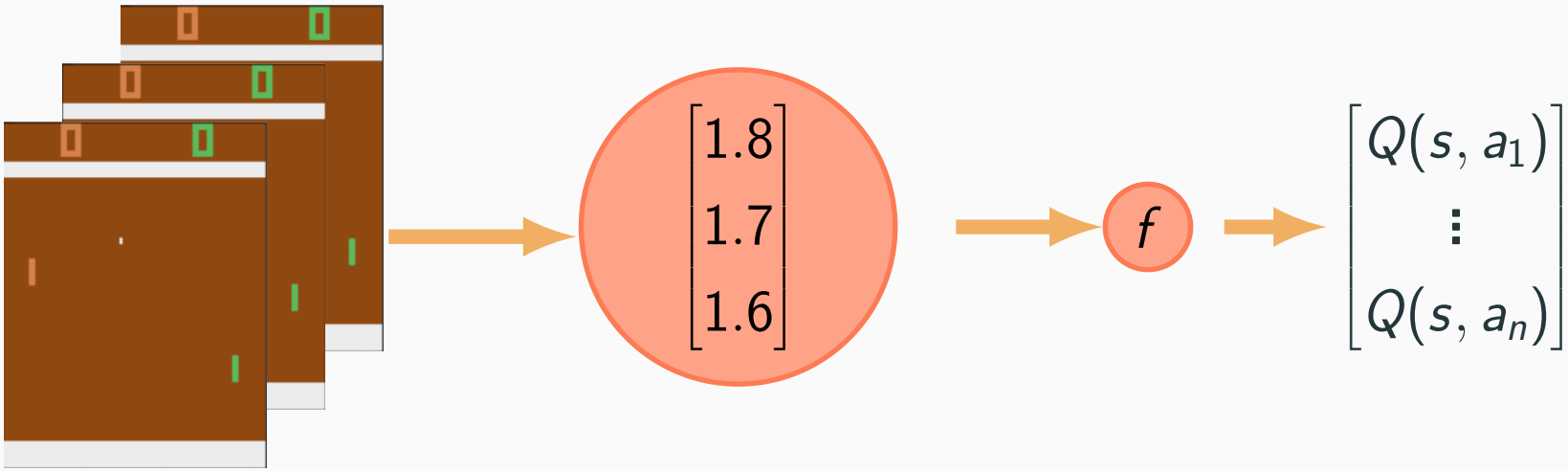
actions

$$\begin{bmatrix} Q(1,\uparrow) & Q(1,\downarrow) & Q(1,\leftarrow) & Q(1,\rightarrow) \\ \vdots & \vdots & \vdots & \vdots \\ Q(9,\uparrow) & Q(9,\downarrow) & Q(9,\leftarrow) & Q(9,\rightarrow) \end{bmatrix}$$

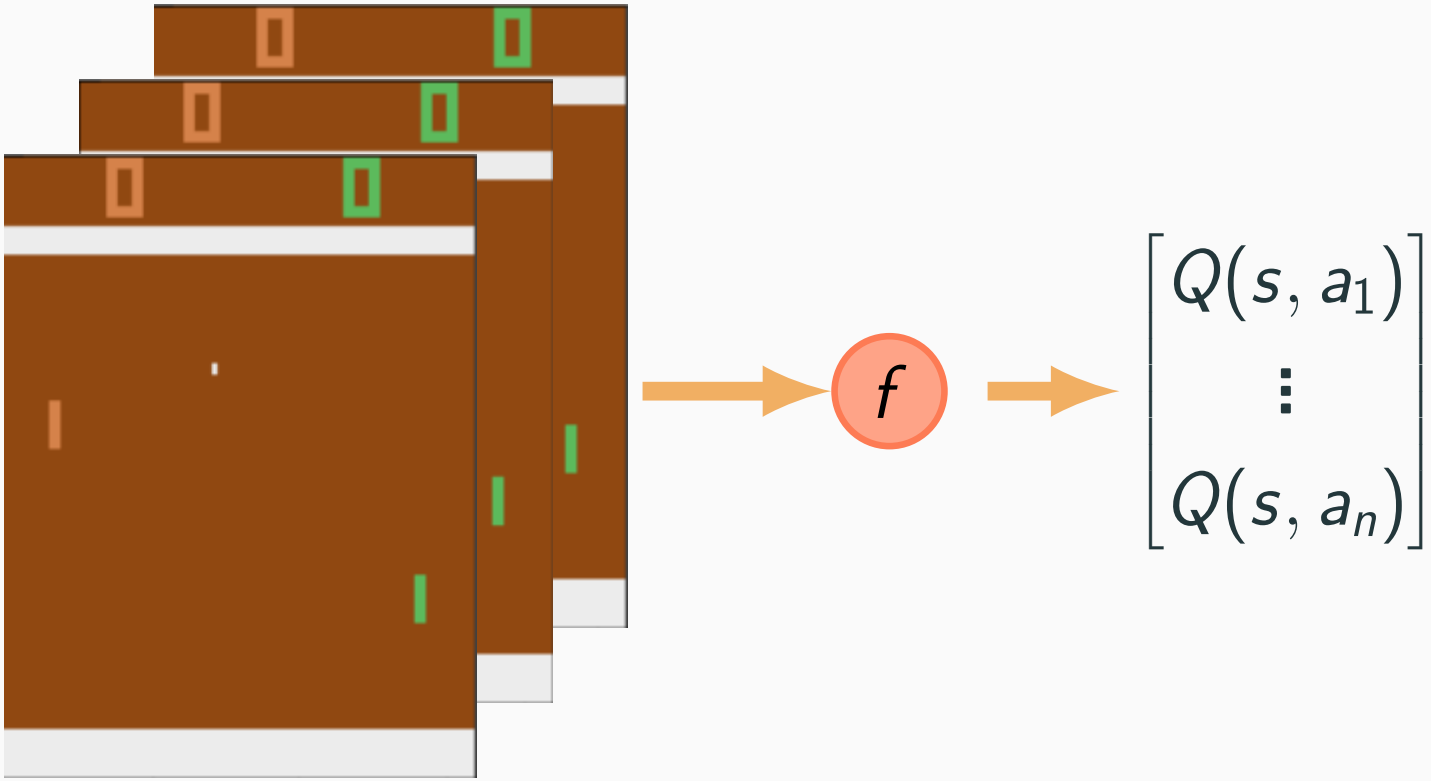
Q-table

RL and feature engineering

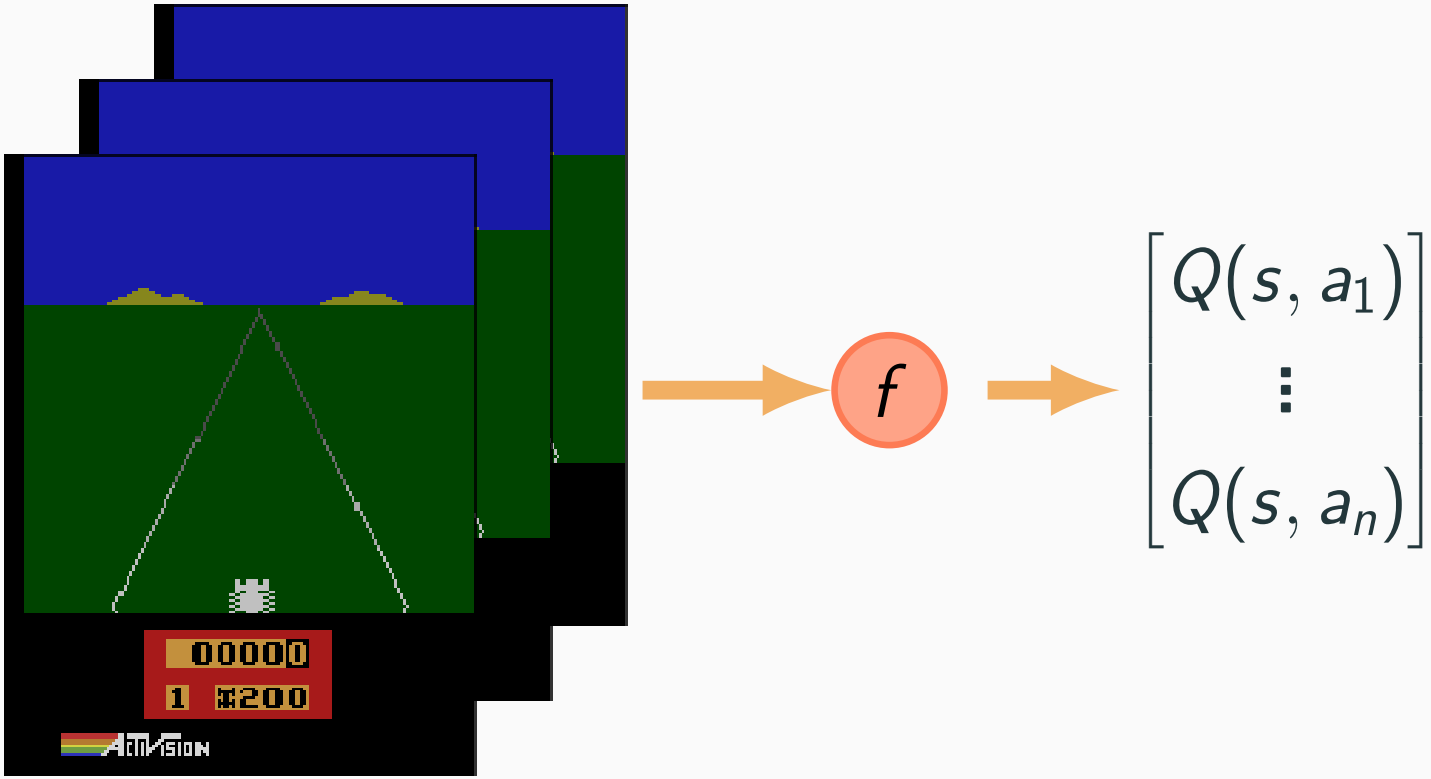
The pong game can have $256^{84\times84\times3}$ different states.



Deep Q-learning



Deep Q-learning



Referências I

R. S. Sutton and A. G. Barto.
***Reinforcement Learning : An Introduction*.**
MIT Press, 1998.