Abstract

This research examines that only trial and error's interactions with their environment let Reinforcement Learning (RL) capable to learn effective behaviours. This research deals with the modelling and verification of a Reinforcement Learning (RL) agent in different environment. To describe the functionality and learning of RL agents LTL is being used as it is more expressive and powerful language. The LTL formulas posses the characteristic to control any abnormal activity or uncertainty during the process. It is only via the experimental results generated through the existing logics and techniques that a theoretical description can be supported. That's why in order to specify multiple tasks in a manner that supports the composition of learned skills I apply Linear Temporal Logic (LTL) as a language.