

Inverted Pendulum on a Cart Problem

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Abstract

Introduction to the problem, MDP's, etc.

1. Problem

A point-mass m is fixed to the end of a pole of length l and is connected to a cart via a free hinge. The cart is restricted to move in one dimension. We want to apply a reinforcement learning algorithm whose goal it is to balance the pole for as long as possible by accelerating the cart to the left or right direction.