Ethics Module

Course: Deep Reinforcement Learning for Robotics

Instructor: Prof. David Held

Kshitij and Mosam, May 4th, 2021

Course style

Seminar style course on reading and analyzing recent advances in deep reinforcement learning for robotics.

Course objectives

- Understand what is needed to make deep learning work for robotics.

- Analyze the trade-offs between different deep learning approaches.

Constraints

- **Timing:** Ethics module should not take a lot of time away from the technical course content.

- **Source of information:** Scholarly ethics-related readings for the research themes discussed during the course seminars.

Learning Objectives

1. Identifying key impacts on society

   Incentivize participation by piazza discussion on key themes and impacts

2. Vocabulary to present and discuss

   Cohesively present an ethical argument over a research theme

3. Identifying valid resources on ethics

   Discussion of valid resources, judged using Piazza upvoting

Example Presentation Topic: Autonomous driving

Deep RL is heavily leveraged for the tasks of Autonomous driving

Discussing the ethical aspects of Deep RL for autonomous driving through a seminar style presentation would help students acquire relevant vocabulary

Implementation Design

Pre-class work

Throughout the course, students accumulate Piazza posts for each seminar.

For the ethics module lecture, they create a presentation.

In-class format and timing

One lecture towards the end of the course

13 research themes, 5-minute presentations each. Total: 65 minutes

15 minutes: Questions or In-class discussion.

Thank you for attending!