

15-464/15-664 References for April 20, 2020 – Learning II

We spent the majority of the time on the following paper, which uses deep reinforcement learning to mimic a given motion capture clip or to adapt it to a new character or somewhat different motion.

Peng, Xue Bin, Pieter Abbeel, Sergey Levine, and Michiel van de Panne. "Deepmimic: Example-guided deep reinforcement learning of physics-based character skills." *ACM Transactions on Graphics (TOG)* 37, no. 4 (2018): 1-14.

<https://xbpeng.github.io/projects/DeepMimic/index.html>

I made a brief mention of this paper, which uses similar techniques to learn physically simulated behavior in response to user controller commands, with the goal of making the approach versatile and fast enough for a game setting.

Bergamin, Kevin, Simon Clavet, Daniel Holden, and James Richard Forbes. "DReCon: data-driven responsive control of physics-based characters." *ACM Transactions on Graphics (TOG)* 38, no. 6 (2019): 1-11.

<https://montreal.ubisoft.com/en/drecon-data-driven-responsive-control-of-physics-based-characters/>