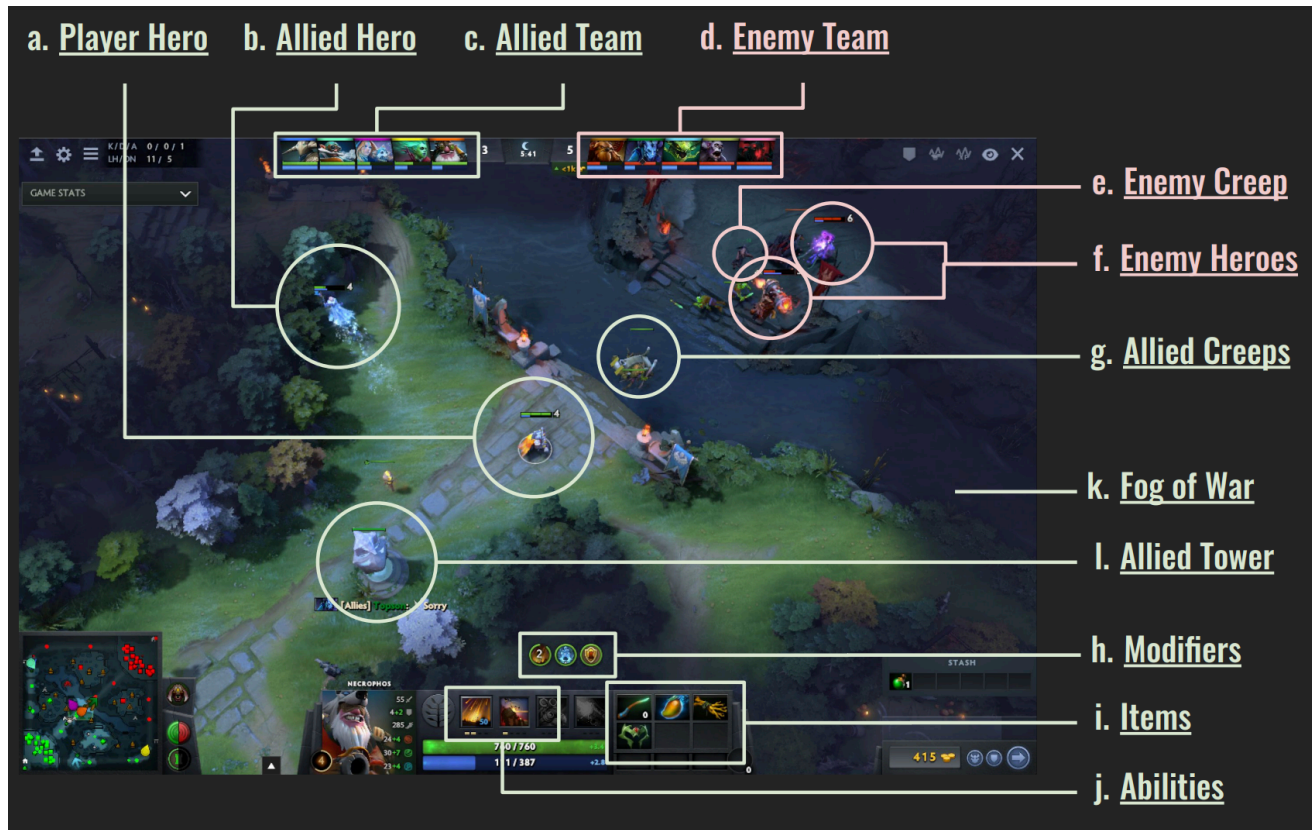


Learning Complex Skills Requires 100s of Millions of Frames!

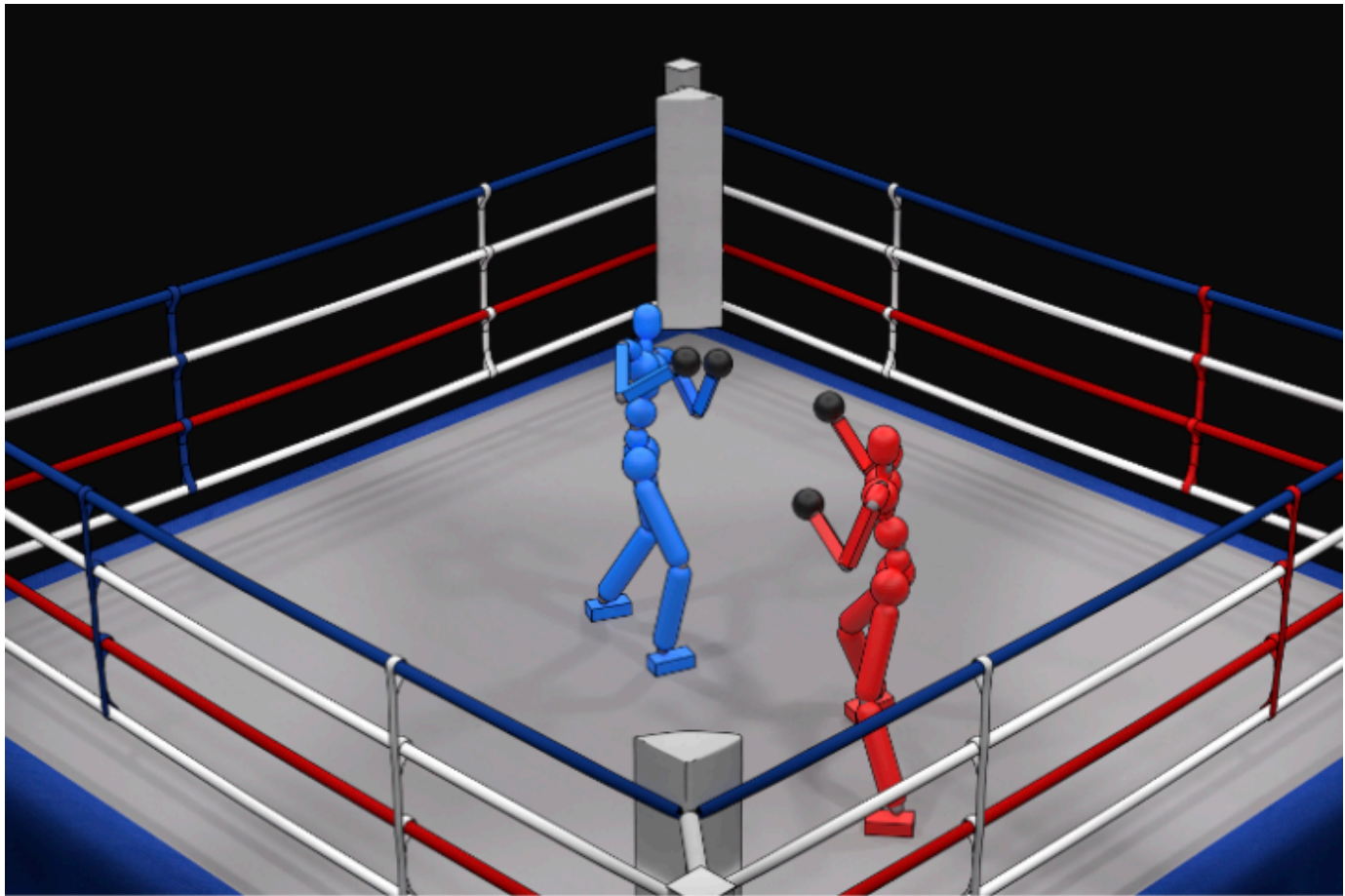
Gaming



Dota 2 with Large Scale Deep Reinforcement Learning

OpenAI, *
Christopher Berner, Greg Brockman, Brooke Chan, Vicki Cheung,
Przemysław “Psyho” Dębiak, Christy Dennison, David Farhi, Quirin Fischer,
Shariq Hashme, Chris Hesse, Rafal Józefowicz, Scott Gray, Catherine Olsson,
Jakub Pachocki, Michael Petrov, Henrique Pondé de Oliveira Pinto, Jonathan Raiman,
Tim Salimans, Jeremy Schlatter, Jonas Schneider, Szymon Sidor, Ilya Sutskever, Jie Tang,
Filip Wolski, Susan Zhang

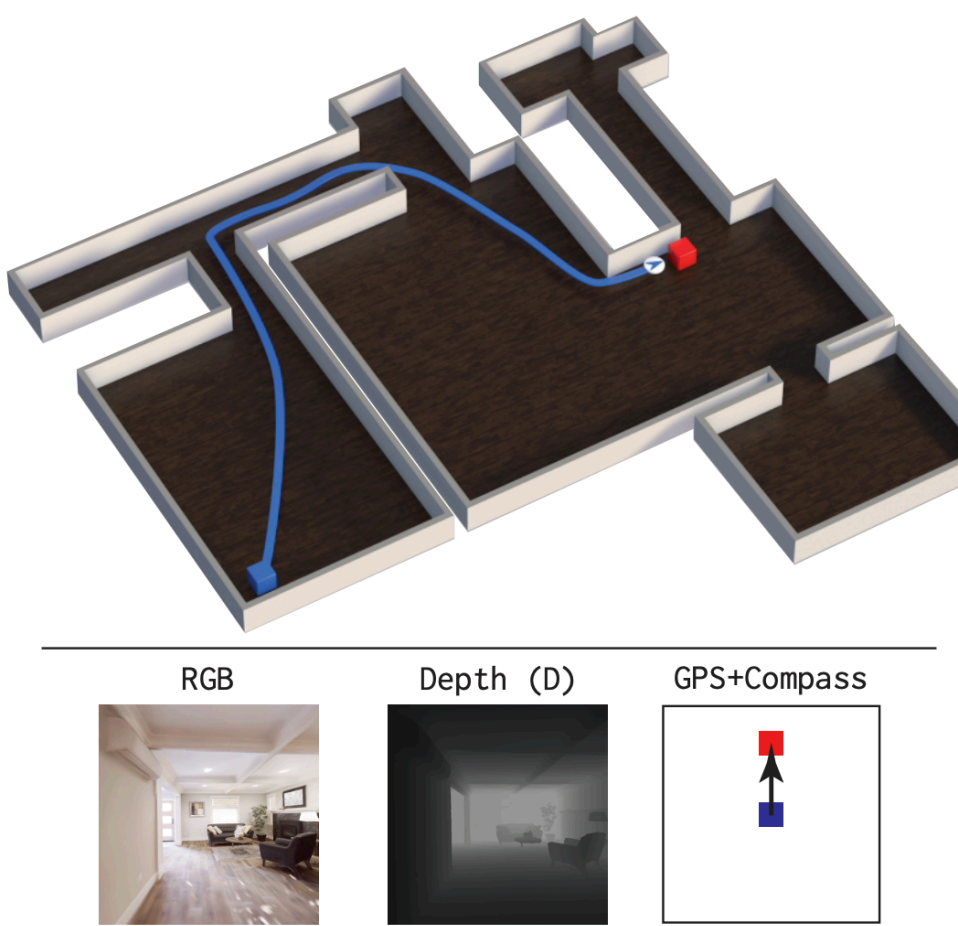
Animation



Control Strategies for Physically Simulated Characters Performing
Two-player Competitive Sports

JUNG DAM WON, Facebook AI Research, USA
DEEPAK GOPINATH, Facebook AI Research, USA
JESSICA HODGINS, Facebook AI Research, USA

Robotics



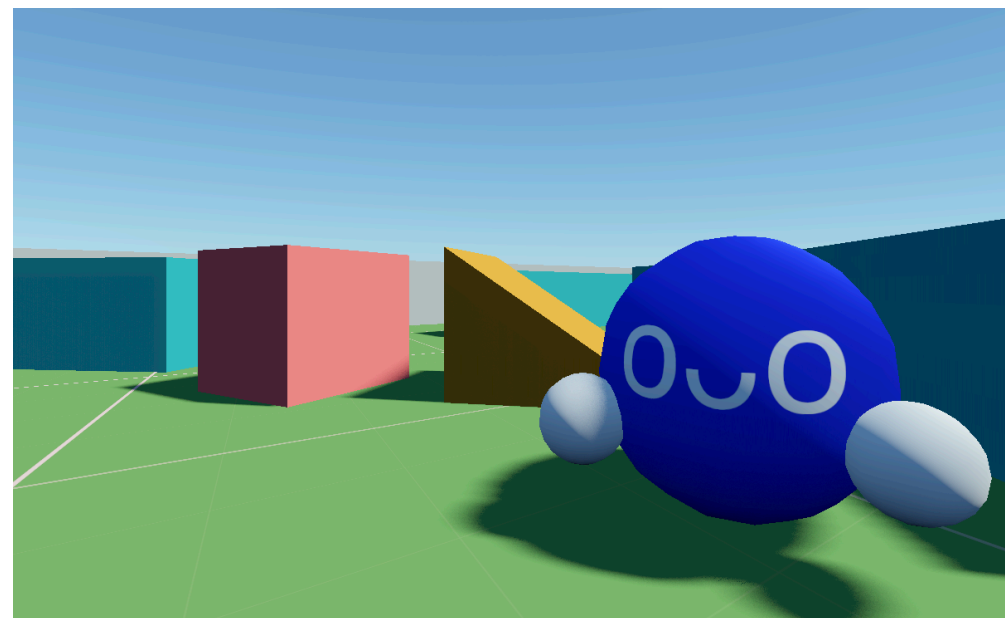
DD-PPO: LEARNING NEAR-PERFECT POINTGOAL
NAVIGATORS FROM 2.5 BILLION FRAMES

Erik Wijmans^{1,2*} Abhishek Kadian² Ari Morcos² Stefan Lee^{1,3} Irfan Essa¹
Devi Parikh^{1,2} Manolis Savva^{2,4} Dhruv Batra^{1,2}
¹Georgia Institute of Technology ²Facebook AI Research
³Oregon State University ⁴Simon Fraser University

High Performance, Fully GPU Driven:

- 32000+ 3D Worlds
- 2 Million FPS
- 1 RTX 4090

Flexible & Programmable Framework:



OpenAI Hide & Seek



Overcooked AI

(and more!)

