Action2vec: Action embeddings

- For some real-world tasks action sequences might be available but additional state information is rare
- Many environments have different action spaces but the actions share characteristics

- Act2vec [Tennenholtz et al. 2019] show that meaningful information can be extracted from action sequences
- LASER [Allshire et al. 2021] use action state tuples to learn latent action space in the robotics domain
- [Hua et al. 2023] get emergent action representations from multi-task policy training

Action2vec: Action embeddings

- Train expert policies on multiple minigrid environments to obtain action sequences
- Train action2vec model
- Train policy online on the same minigrid environments
- Test generalization/ adaptation of policy on similar minigrid environment
- Compare to multi-task policy trained with original actions and policy trained from scratch