





Barcelona BSC Supercomputing Center



3D Minecraft and Habitat environment. Input consists of RGB observations only.

## Ourapproach



[1] Campos, Víctor, et al. "Explore, discover and learn: Unsupervised discovery of state-covering skills." ICML PMLR, 2020.

# **PixelEDL: Unsupervised Skill Discovery** and Learning from Pixels





- Intrinsic reward derived from the forward form of the Mutual characterized by
- 2. Discover disjoint navigation goals by taking into account **image** observation resemblance only.
- 3. Scale from **visually simple to complex** environments





CUSTOM MINECRAFT MAP

REALISTIC MINECRAFT MAP

## Results

https://imatge-upc.github.io/PixelEDL/



## Information does not match a distance in an environment observations. image

HABITAT APARTMENT

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