

Habitat Embodied Navigation Challenge @ CVPR20

FB AI/FAIR has created a fast photo-realistic simulator called Habitat (<https://aihabitat.org/>). The team organized an autonomous navigation challenges last year at CVPR19, and is planning to organize two more challenges this year -- (1) PointNav -- navigate to a point and (2) ObjectNav -- find an object ("find the chair") - both in unseen environments without access to a map.

Starter code is provided. Task is well-defined. Timeline is fairly aligned (deadline around early May / end of semester). Good testbed to try techniques learned in class (CNNs for egocentric perception, RNNs for recurrent policy, RL for navigation).

Warning: This topic is medium/advanced difficulty, and we recommend you understand how to run the infrastructure and simulations, get the data, and drive the agent before the project timeline officially starts to make sure you have enough time to focus on the deep learning aspect.