

Auto-Navigator: Decoupled Neural Architecture Search for Visual Navigation

Appendix A. Video

In our attached video, we show the examples of Auto-Navigator-S on Gibson. Each frame consists of RGB images, depth maps, surface normals, top-down view map, image reconstruction output, depth prediction, surface normals prediction, distribution for actions. The green line in the map represents the shortest path in the episode.

Appendix B. Performance With Steps

Figure 1 shows the performance of different search spaces with 100M training steps.

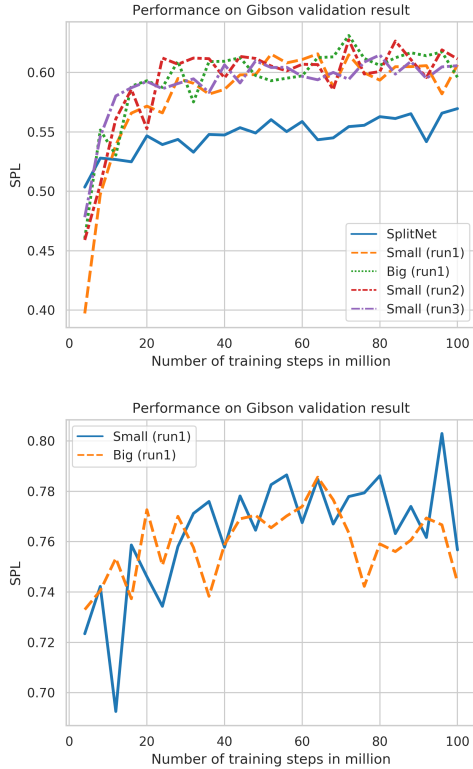


Figure 1: **Top:** Validation SPL during 100 million training steps with different architectures via Behavior Cloning. **Bottom:** Validation SPL during 100 million training steps with different search spaces via PPO.

Appendix C. Searched Network Architecture

Figure 2 shows the structures of searched perception modules. We list the architecture with different search spaces.

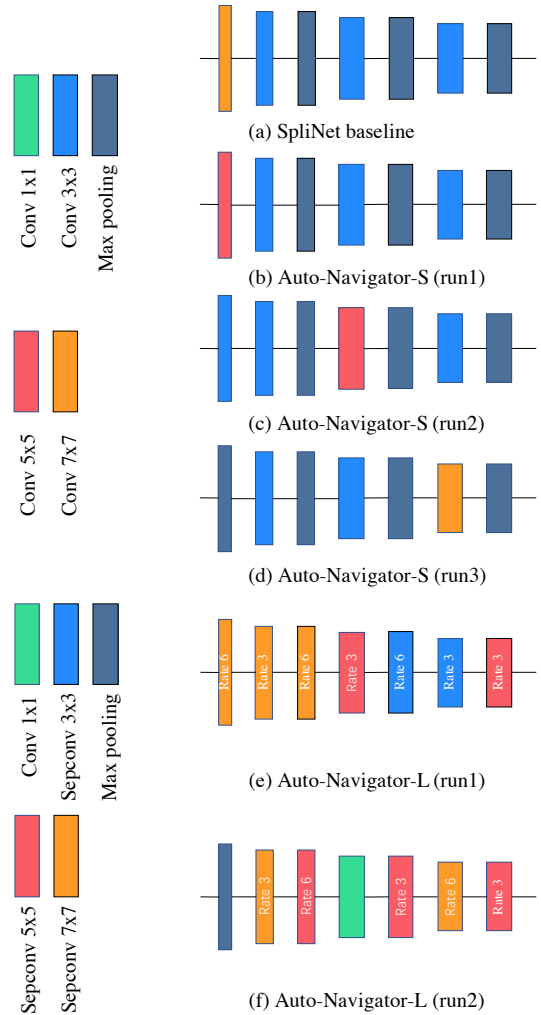


Figure 2: Searched architectures with different search spaces.