

TECHNICAL CHALLENGE FOR MACHINE LEARNING AND ROBOTICS RESEARCH ENGINEER ROLE

This document describes the technical challenge that is part of the interview process for the Machine Learning and Robotics Research Engineer position at OffWorld. There are two parts to this technical challenge.

- 1) Using either PyTorch or Tensorflow, write an implementation of the Actor/Critic network as defined in the Primal paper, that is, fig (3) of this paper: <https://arxiv.org/pdf/1809.03531.pdf>. You are expected to only write an implementation of the policy network and not the entire algorithm. For example, if you are using Pytorch, write a class that inherits the torch.nn.Module, implements the network blocks and implements the forward method.
- 2) Provide a technical approach to convert LiDAR data from n homogenous robots into a grid representation of the environment that is passed as an input to the neural network implemented in (1). No code is needed.

All the best!