第二周写作作业

**A Proposal to Implement optimized reward functions NetAdapt to searching for a light-weight backbone for tow-stage detectors.**

Summary

Statement of Problem

* Network architecture and hyper-parameter optimization is a black-box optimization problem, and the recently popular search strategy defines what algorithms can be used to quickly and accurately find the optimal configuration of network structure parameters. A practical problem is that searching for a optimized structure is time consuming and computational expensive. We are expected to optimize the reward functions in NetAdapt and propose a more efficient backbone for two-stage detectors.

Related work

* The previous methods of model structure selection
* The related research on the trade off between low latency and accuracy
* The development of neural network architecture search

Objectives

* An optimized reward functions for NetAdapt
* A new two-stage detector with Feature Pyramid and a light-weight backbone

Plan of Action

* Indentifying the detector framework for the research
* Evaluate the iteration time using NetAdapt
* Developing appropriate reward functions
* Selecting the network structure generated within a reasonable time

Experiment Plan

Expected results

Conclusion

References