基于动态扫描机制的 Vision RWKV 让医学影像分割轻量而高效

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***Abstract*—写好 Transformer 的不足 RNN 的不足写该工作的主要贡献主要干了什么解决了什么问题代码在哪里能复现**

***Index Terms*—deep learning, computer vision, segmentation, RWKV, RNN, Transformer**

I. Introduction

Semantic Segmentation 是计算机视觉中的一项重要任务。写好文章介绍。首先写语义分割，然后写医学影像分割，然后写方法迭代。

neural networks (DNNs) have achieved remarkable success in various AI tasks. However, their enormous computational cost hinders deployment on resource-limited devices. Pruning redundant parameters is one of the most popular compression techniques [1].

II. Related Work

A. Magnitude-based Pruning

Han *et al.* [1] proposed to remove weights with small absolute values.

B. Dynamic Sparse Training

Most recently, DST [2] allows the sparse topology to evolve during training.

III. Methodology

Let $\mathcal{W} = \{W_l\}_{l=1}^{L}$ denote the weights of an L-layer network. Our goal is to find a sparse mask M_l for each layer such that the remaining weights $W_l \odot M_l$ retain accuracy.

A. Dynamic Growth Criterion

We use the gradient magnitude as the saliency score:

$$s_{ij}^{(l)} = \left| \frac{\partial \mathcal{L}}{\partial w_{ij}^{(l)}} \right|. \tag{1}$$

IV. Experiments

We evaluate DST on CIFAR-10/100 and ImageNet with ResNet-50.

V. Conclusion

We presented a simple yet effective DST framework that dynamically adjusts sparse connectivity during training. Future work includes extending DST to transformer architectures.

TABLE I
Top-1 accuracy (%) on CIFAR-10 under different sparsities.

Method	90% sparsity	95% sparsity
Baseline	93.5	91.2
Magnitude [1]	92.8	89.7
DST (ours)	**94.1**	**92.3**

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References

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