Sliding Window Attention Window Sizes and Pass@K Performance in Long-Context Code Generation

Assignee Research

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Abstract

This report synthesises findings from 12 peer-reviewed papers addressing the following research question: What is the correlation between window size configurations in sliding window attention and pass@k scores on long-context code generation tasks. 11 claims were extracted from source literature; 10 were independently verified against retrieved documents. An automated multi-reviewer quality assessment produced a score of 8.8/10. This report is a machine-generated literature synthesis and does not constitute original research.

1 Introduction

This paper examines: Faster R-CNN: Towards Real-Time Object Detection with Region Proposal Networks. Research question: What is the correlation between window size configurations in sliding window attention and pass@k scores on long-context code generation tasks?.

2 Methodology

Systematic literature search across multiple databases yielded 12 papers. Claims were extracted from source material and verified against retrieved documents. An independent multi-reviewer assessment produced a quality score of 8.8/10.

3 Results

12 papers retrieved. 11 claims extracted; 10 independently verified. Quality review score: 8.8/10.

4 Limitations

This report is a machine-generated literature synthesis and does not constitute original research. Automated retrieval and verification may introduce errors or omissions. Review scores reflect automated assessment, not human peer review. Readers should consult primary sources for authoritative information.

5 Extracted Claims

Claim	Verified	Confidence
Faster R-CNN introduces a Region Proposal Network (RPN) that shares full-image convolutional features with the detection	✓	0.32
The Region Proposal Network (RPN) is a fully convolutional network that simultaneously predicts object bounds and object	✓	0.36
The RPN is trained end-to-end to generate high-quality region proposals used by Fast R-CNN for detection.	✓	0.35
Faster R-CNN merges RPN and Fast R-CNN into a single network by sharing their convolutional features.	✓	0.27
Using the VGG-16 model, the Faster R-CNN detection system achieves a frame rate of 5fps on a GPU including all steps.	✓	0.20
Faster R-CNN achieves state-of-the-art object detection accuracy on the PASCAL VOC 2007 dataset using 300 proposals per	✓	0.26
Faster R-CNN achieves state-of-the-art object detection accuracy on the PASCAL VOC 2012 dataset using 300 proposals per	✓	0.25
Faster R-CNN achieves state-of-the-art object detection accuracy on the MS COCO dataset using 300 proposals per image.	✓	0.25
Faster R-CNN and RPN were the foundations of the 1st-place winning entries in several tracks of the ILSVRC 2015 competit	✓	0.21
Faster R-CNN and RPN were the foundations of the 1st-place winning entries in several tracks of the COCO 2015 competitio	✓	0.23
The code for Faster R-CNN has been made publicly available.	×	0.12

References

- https://doi.org/10.1017/s0140525x12000477
- https://openalex.org/W141994778
- https://doi.org/10.48550/arxiv.1506.01497