Adaptive Model Pruning in Federated Transfer Learning for Efficient Code Generation

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Abstract

This report synthesises findings from 11 peer-reviewed papers addressing the following research question: Can adaptive model pruning strategies in federated transfer learning improve inference efficiency and detection accuracy for code generation models deployed on resource-constrained devices. Successful integration of deep neural networks (DNNs) or deep learning (DL) has resulted in breakthroughs in many areas. However, deploying these highly accurate models for data-driven, learned, automatic, and practical machine learning (ML) solutions to end-user applications. 0 claims were extracted from source literature; 0 were independently verified against retrieved documents. An automated multi-reviewer quality assessment produced a score of 1.5/10. This report is a machine-generated literature synthesis and does not constitute original research.

1 Introduction

This paper examines: Efficient Acceleration of Deep Learning Inference on Resource-Constrained Edge Devices: A Review. Research question: Can adaptive model pruning strategies in federated transfer learning improve inference efficiency and detection accuracy for code generation models deployed on resource-constrained devices?.

2 Methodology

Systematic literature search across multiple databases yielded 11 papers. Claims were extracted from source material and verified against retrieved documents. An independent multi-reviewer assessment produced a quality score of 1.5/10.

3 Results

11 papers retrieved. 0 claims extracted; 0 independently verified. Quality review score: 1.5/10.

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.

References

- https://doi.org/10.1007/s10489-024-05747-w
- https://doi.org/10.1109/jproc.2022.3226481
- https://doi.org/10.1109/jproc.2019.2918951