

# Lion Optimizer Effects on CLIP Multimodal Alignment and ImageNet Zero-Shot Accuracy

Assignee Research

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## Abstract

This report synthesises findings from 11 peer-reviewed papers addressing the following research question: What is the impact of replacing Adam with the Lion optimizer on the multimodal alignment performance of CLIP models evaluated on ImageNet zero-shot accuracy. 0 claims were extracted from source literature; 0 were independently verified against retrieved documents. An automated multi-reviewer quality assessment produced a score of 3.2/10. This report is a machine-generated literature synthesis and does not constitute original research.

## 1 Introduction

This paper examines: CLIP Itself is a Strong Fine-tuner: Achieving 85.7% and 88.0% Top-1 Accuracy with ViT-B and ViT-L on ImageNet. Research question: What is the impact of replacing Adam with the Lion optimizer on the multimodal alignment performance of CLIP models evaluated on ImageNet zero-shot accuracy?.

## 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 3.2/10.

## 3 Results

11 papers retrieved. 0 claims extracted; 0 independently verified. Quality review score: 3.2/10.

## 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

- <http://arxiv.org/abs/2212.06138v1>
- <http://arxiv.org/abs/2408.13320v1>
- <http://arxiv.org/abs/2205.11616v2>