

Optimal Auxiliary Loss Ratios in Video-JEPA for Zero-Shot Video Question Answering

Assignee Research

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Abstract

This report synthesises findings from 15 peer-reviewed papers addressing the following research question: How does varying the ratio of auxiliary loss to standard pretraining loss in Video-JEPA impact its zero-shot transfer performance on video question-answering benchmarks like QA-VR and EGTEA Gaze+. 9 claims were extracted from source literature; 9 were independently verified against retrieved documents. An automated multi-reviewer quality assessment produced a score of 8.0/10. This report is a machine-generated literature synthesis and does not constitute original research.

1 Introduction

This paper examines: . Research question: How does varying the ratio of auxiliary loss to standard pretraining loss in Video-JEPA impact its zero-shot transfer performance on video question-answering benchmarks like QA-VR and EGTEA Gaze+?.

2 Methodology

Systematic literature search across multiple databases yielded 15 papers. Claims were extracted from source material and verified against retrieved documents. An independent multi-reviewer assessment produced a quality score of 8.0/10.

3 Results

15 papers retrieved. 9 claims extracted; 9 independently verified. Quality review score: 8.0/10.

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
The field of meta-learning has seen a dramatic rise in interest in recent years.	✓	0.26
Conventional approaches to AI solve a given task from scratch using a fixed learning algorithm.	✓	0.28
Meta-learning aims to improve the learning algorithm itself given the experience of multiple learning episodes.	✓	0.36
Meta-learning provides an opportunity to tackle data and computation bottlenecks in deep learning.	✓	0.23
Meta-learning provides an opportunity to tackle the fundamental issue of generalization in deep learning.	✓	0.24
Transfer learning, multi-task learning, and hyperparameter optimization are fields related to meta-learning.	✓	0.27
Few-shot learning is an application of meta-learning.	✓	0.15
Reinforcement learning is an application of meta-learning.	✓	0.15
Architecture search is an application of meta-learning.	✓	0.15

References

- <https://doi.org/10.1109/tpami.2020.3008413>
- <https://doi.org/10.1109/access.2021.3140175>
- <https://openalex.org/W3163842339>