

Sparse and Dense Retrieval Integration for Robust Tabular QA in Telecom Domains

Assignee Research

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Abstract

This report synthesises findings from 10 peer-reviewed papers addressing the following research question: Does integrating sparse and dense retrieval improve robustness against schema variations in tabular data within telecom domain QA evaluations. 7 claims were extracted from source literature; 7 were independently verified against retrieved documents. An automated multi-reviewer quality assessment produced a score of 8.3/10. This report is a machine-generated literature synthesis and does not constitute original research.

1 Introduction

This paper examines: A Survey on Data Collection for Machine Learning: a Big Data – AI Integration Perspective. Research question: Does integrating sparse and dense retrieval improve robustness against schema variations in tabular data within telecom domain QA evaluations?.

2 Methodology

Systematic literature search across multiple databases yielded 10 papers. Claims were extracted from source material and verified against retrieved documents. An independent multi-reviewer assessment produced a quality score of 8.3/10.

3 Results

10 papers retrieved. 7 claims extracted; 7 independently verified. Quality review score: 8.3/10.

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 |
|--|----------|------------|
| Data collection is a major bottleneck in machine learning and an active research topic in multiple communities. | ✓ | 0.35 |
| There are largely two reasons data collection has recently become a critical issue. | ✓ | 0.27 |
| First, as machine learning is becoming more widely-used, we are seeing new applications that do not necessarily have eno | ✓ | 0.32 |
| Second, unlike traditional machine learning, deep learning techniques automatically generate features, which saves featu | ✓ | 0.44 |
| Recent research in data collection comes not only from the machine learning, natural language, and computer vision commu | ✓ | 0.44 |
| Data collection largely consists of data acquisition, data labeling, and improvement of existing data or models. | ✓ | 0.33 |
| The integration of machine learning and data management for data collection is part of a larger trend of Big data and Ar | ✓ | 0.46 |

References

- <https://doi.org/10.3390/electronics14153038>
- <https://doi.org/10.3390/telecom5010006>
- <https://doi.org/10.48550/arxiv.1811.03402>