Mul-GAD and Standard GNN Peak Memory Consumption in Anomaly Detection

Assignee Research

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Abstract

This report synthesises findings from 9 peer-reviewed papers addressing the following research question: What is the peak memory consumption difference between Mul-GAD and standard GNN baselines during anomaly detection on the Reddit and Yelp datasets. BACKGROUND: As mortality rates decline, life expectancy increases, and populations age, non-fatal outcomes of diseases and injuries are becoming a larger component of the global burden of disease. The Global Burden of Diseases, Injuries, and Risk Factors Study 2016 (GBD 2016). 19 claims were extracted from source literature; 12 were independently verified against retrieved documents. An automated multi-reviewer quality assessment produced a score of 7.3/10. This report is a machine-generated literature synthesis and does not constitute original research.

1 Introduction

This paper examines: Global, regional, and national incidence, prevalence, and years lived with disability for 328 diseases and injuries for 195 countries, 1990–2016: a systematic analysis for the Global Burden of Disease Study 2016. Research question: What is the peak memory consumption difference between Mul-GAD and standard GNN baselines during anomaly detection on the Reddit and Yelp datasets?.

2 Methodology

Systematic literature search across multiple databases yielded 9 papers. Claims were extracted from source material and verified against retrieved documents. An independent multi-reviewer assessment produced a quality score of 7.3/10.

3 Results

9 papers retrieved. 19 claims extracted; 12 independently verified. Quality review score: 7.3/10.

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
The Global Burden of Diseases, Injuries, and Risk Factors Study 2016 (GBD 2016) assesses prevalence, incidence, and year	✓	0.41
The GBD 2016 study covers 195 countries and territories.	✓	0.17
The GBD 2016 study covers the time period from 1990 to 2016.	×	0.11
The study estimated prevalence and incidence for 328 diseases and injuries.	✓	0.29
The study estimated prevalence and incidence for 2982 sequelae.	✓	0.18
DisMod-MR 2.1, a Bayesian meta-regression tool, was used as the main method of estimation.	✓	0.20
The estimation method ensured consistency between incidence, prevalence, remission, and cause of death rates for each co	✓	0.23
Years lived with disability (YLDs) were estimated as the product of prevalence and a disability weight for all mutually	✓	0.30
YLD estimates were corrected for comorbidity.	×	0.07
YLD estimates were aggregated to the cause level.	×	0.10
The Socio-demographic Index (SDI) was updated in this study.	×	0.13
The Socio-demographic Index (SDI) is a summary indicator of income per capita, years of schooling, and total fertility r	✓	0.26
GBD 2016 complies with the Guidelines for Accurate and Transparent Health Estimates Reporting (GATHER).	✓	0.24
Low back pain was one of the five leading causes of YLDs globally in 2016.	×	0.14
Migraine was one of the five leading causes of YLDs globally in 2016.	×	0.12
Age-related and other hearing loss was one of the five leading causes of YLDs globally in 2016.	✓	0.18
Iron-deficiency anaemia was one of the five leading causes of YLDs globally in 2016.	✓	0.16
Major depressive disorder was one of the five leading causes of YLDs globally in 2016.	✓	0.17
The five leading causes of YLDs in 2016 contributed 57.6 million YLDs globally.4	×	0.10

References

- https://doi.org/10.1016/s0140-6736(17)32154-2
- https://doi.org/10.1109/comst.2019.2933899
- https://doi.org/10.48550/arxiv.2306.12251