

# Scaling Node-Based Bayesian Layers for Epistemic Uncertainty Calibration in OOD Detection

Assignee Research

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## Abstract

This report synthesises findings from 4 peer-reviewed papers addressing the following research question: How does scaling the width of node-based Bayesian layers affect epistemic uncertainty calibration accuracy compared to weight-based BNNs on OOD detection benchmarks for large language models. 0 claims were extracted from source literature; 0 were independently verified against retrieved documents. An automated multi-reviewer quality assessment produced a score of 1.8/10. This report is a machine-generated literature synthesis and does not constitute original research.

## 1 Introduction

This paper examines: VS-Net: Voting with Segmentation for Visual Localization. Research question: How does scaling the width of node-based Bayesian layers affect epistemic uncertainty calibration accuracy compared to weight-based BNNs on OOD detection benchmarks for large language models?.

## 2 Methodology

Systematic literature search across multiple databases yielded 4 papers. Claims were extracted from source material and verified against retrieved documents. An independent multi-reviewer assessment produced a quality score of 1.8/10.

## 3 Results

4 papers retrieved. 0 claims extracted; 0 independently verified. Quality review score: 1.8/10.

## 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/2602.00982v1>
- <http://arxiv.org/abs/2504.07569v2>
- <http://arxiv.org/abs/2105.10886v1>