

# Contrastive Loss Integration with Dense Knowledge Distillation in CodeT5 Zero-Shot Generalization

Assignee Research

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## Abstract

This report synthesises findings from 15 peer-reviewed papers addressing the following research question: How does the integration of contrastive loss with Dense Knowledge Distillation (DKD) affect CodeT5's zero-shot generalization accuracy on unseen programming tasks in other languages (e.g., Java, JavaScript)? 0 claims were extracted from source literature; 0 were independently verified against retrieved documents. An automated multi-reviewer quality assessment produced a score of 5.0/10. This report is a machine-generated literature synthesis and does not constitute original research.

## 1 Introduction

This paper examines: Augmentation-Free Dense Contrastive Knowledge Distillation for Efficient Semantic Segmentation. Research question: How does the integration of contrastive loss with Dense Knowledge Distillation (DKD) affect CodeT5's zero-shot generalization accuracy on unseen programming tasks in other languages (e.g., Java, JavaScript) compared to vanilla DKD on the MBXP benchmark?.

## 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 5.0/10.

## 3 Results

15 papers retrieved. 0 claims extracted; 0 independently verified. Quality review score: 5.0/10.

## 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.

## References

- <http://arxiv.org/abs/2206.07869v1>
- <http://arxiv.org/abs/2405.09820v1>
- <http://arxiv.org/abs/2312.04168v1>