

Title: Evaluating Schema-Constrained LLM Outputs for Reproducible Literature Reviews

Abstract

Systematic literature reviews require consistent and auditable extraction of study characteristics across large document collections. This paper evaluates a schema-constrained large language model pipeline for extracting metadata from short research PDFs. We apply the approach to simulated empirical papers containing abstracts, tables, and brief methods sections. The results show that enforcing explicit schemas reduces hallucinated content and improves cross-paper comparability. Limitations include sensitivity to document layout and section labeling. The study demonstrates the potential of LLMs as data extraction components in computational research synthesis.