

Zero-Shot or Few-Shot Learning for Low-Resource LanguagesChunyang JIANG



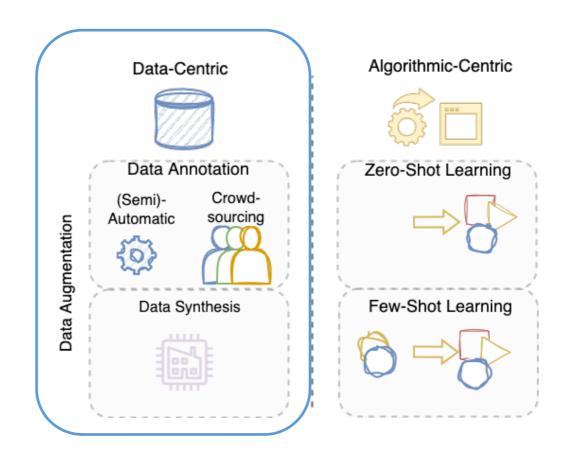
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Motivation

- Recent advances with Large Language Models
 - High computational cost.
 - Reliance on extensive data, often limited to a few languages.
- Challenges in low-resource constraints
 - Need for models that can learn from smaller datasets and are crosslinguistically valid.



Current Solutions in Low-Resource Constraints





Blackbird Language Matrices Tasks

Legend

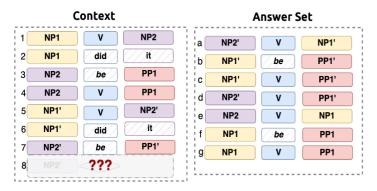
Agent

Verb

Theme

PP

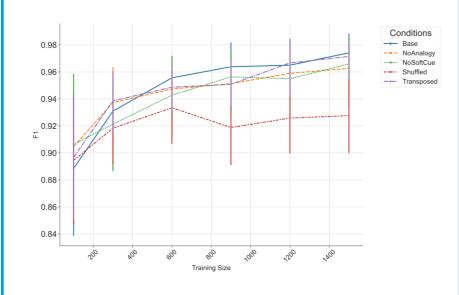
Well-Strucutred Data



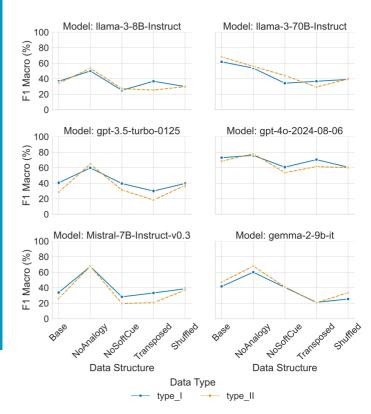
Error Types

- a: StructChange-RoleSwap
- b: StructChange-RoleReplace
- c: RoleReplace
- · d: Correct
- e: PrdgmStructChange-RoleSwap
- f: PrdgmStructChange-RoleReplace
- g: PrdgmChange-RoleReplace

Performance with small models

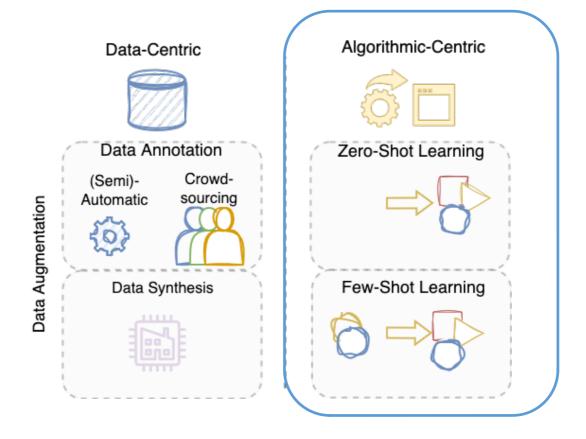


Performance with LLMs





Next Steps





Thank you!