

Identification of SHACL Constraints from a Knowledge Graph

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Automatic identification of common patterns in Knowledge Graphs

- Categorize Data
 - Categories: {predicates} x {objects}
 - Elements fall into their natural categories
 - ex:Banana [rdf:type ex:fruit]
 - ex:Banana [ex:color ex:yellow]
- Compare elements in categories
 - count the occurrences of all other properties
 - every diagnosis is connected to some patient assume it is necessary for a diagnosis to be connected to some patient
- Store these patterns in SHACL shape files
 - verify incoming data in collaborative databases
 - remove humans from quality management