Logic Programming in *R* using FactsRules

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Logic programming is a programming paradigm based on first order logic that is especially well suited for applications in natural language processing, pattern matching, combinatorics, artificial intelligence and social network analysis. First order logic is closely linked to relational algebra and therefore also generally useful for querying and managing tidy data.

The **FactsRules** package provides three components for logic programming in *R*: a pure-*R* implementation of unification; a formula interface for declaring rules; and wrapper functions for `data.frame` and `data.table`.

This talk will review logic programming, relational algebra and unification and explain how they are implemented in **FactsRules** with a focus on pragmatic examples.