

# **The Power of Declarative Languages: From Information Extraction to Machine Learning**

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**Abstract:** As advanced analytics has become more mainstream in enterprises, usability and system-managed performance optimizations are critical for its wide adoption. As a result, there is an active interest in the design of declarative languages in several analytics areas. In this talk I will describe the efforts in IBM around three areas namely Information Extraction, Entity Resolution and Machine Learning. I will detail these efforts, at some length, and also explain the motivation behind some of the design choices made while implementing declarative solutions for the individual areas. I will end with results that demonstrate multiple advantages of the declarative approaches as compared with existing solutions.