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(54) Title: NAMED ENTITY RECOGNITION AND EXTRACTION USING GENETIC PROGRAMMING

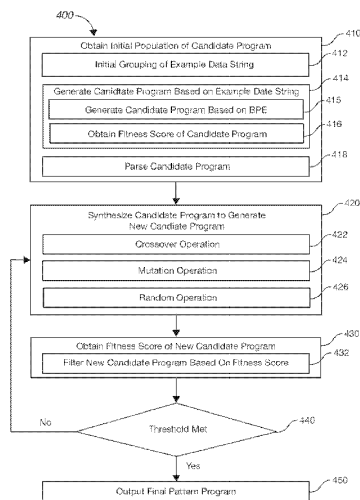


FIG. 4

(57) Abstract: Disclosed herein are methods, systems, and apparatus, including computer programs encoded on computer storage media, for generating a pattern program using a genetic algorithm. The genetic algorithm operates on example data strings that represent the data categories to be recognized or extracted through named entity recognition. In the initialization stage, the initial pattern programs are generated based on example data strings that represent the data categories to be recognized or extracted through named entity recognition. Starting from the initial pattern programs, genetic operations are iteratively conducted to generate generations of offspring pattern programs. In each round of the genetic operation, offspring pattern programs are generated through the crossover operation and the mutation operation.

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