An Adaptive Context Modeling Approach Using Genetic Algorithm in IoTs Environments

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Abstract

Internet of Things (loTs) is the future of ubiquitous and personalized intelligent service delivery. It depends on installing intelligent sensors to sense and control physical environment to generate enormous amount of data with various data types. Context aware computing is employed for transforming these sensor data into knowledge through three stages: collection, modeling and reasoning. In context modeling, raw data represents in according meaningful manner statically. Furthermore, with growth of IoTs live applications, static modeling is not convenient because of changing context data structure overtime. The work in this paper is dedicated to propose a new dynamic approach for context modeling based on genetic algorithm and satisfaction factor. In addition, flexibility indicator property and context based are defined to measure the performance of the proposed approach

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