Title: Mode extraction and storage optimization of multi-source data in Internet of Things

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Abstract: In the era of big data, multi-source data collected in Internet of Things is requiring efficient and accurate data processing along with data specification and mode extraction. Low efficiency in massive data query, lack of unified data specification, and short in supporting space-time property of data are serious problems to be solved. According to this, our project is aimed to optimize the existing data system and analyze data mode of sensors. Initially we would establish data specification for both static and mobile sensors. In the following stage, we would use analytical methods to obtain data mode of sensors then do research on mode extraction. Based on study above, we may build up a distributed space-time data system in order to solve the query optimization and storage problems in massive data of sensors in Internet of Things.

Type of project: Student extra-curricular project

Abstract 中文

在大数据时代，在物联网中收集的多源数据需要高效和准确的数据处理以及数据规范和模式提取。 海量数据查询的低效率，缺乏统一的数据规范，以及支持数据的时空特性的缺点是需要解决的严重问题。 据此，我们的项目旨在优化现有的数据系统和分析传感器的数据模式。 最初，我们将为静态和移动传感器建立数据规范。 在下一阶段，我们将使用分析方法来获得传感器的数据模式，然后进行模式提取的研究。 基于上述研究，我们可以建立一个分布式时空数据系统，以解决物联网中传感器海量数据的查询优化和存储问题。