

Accepted Manuscript

Big data for internet of things: A survey

Mouzhi Ge, Hind Bangui, Barbora Buhnova

PII: S0167-739X(17)31695-3

DOI: <https://doi.org/10.1016/j.future.2018.04.053>

Reference: FUTURE 4131

To appear in: *Future Generation Computer Systems*

Received date: 29 July 2017

Revised date: 4 April 2018

Accepted date: 19 April 2018



Please cite this article as: M. Ge, H. Bangui, B. Buhnova, Big data for internet of things: A survey, *Future Generation Computer Systems* (2018), <https://doi.org/10.1016/j.future.2018.04.053>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Big Data for Internet of Things: A Survey

Mouzhi Ge^{a,b}, Hind Bangui^{a,b,c}, Barbora Buhnova^{a,b}

^a*Institute of Computer Science, Masaryk University, Brno, Czech Republic*

^b*Faculty of Informatics, Masaryk University, Brno, Czech Republic*

^c*FSTG, Cadi Ayyad University, Marrakesh, Morocco*

{mouzhi.ge, hind.bangui, buhnova}@mail.muni.cz

Abstract

With the rapid development of the Internet of Things (IoT), Big Data technologies have emerged as a critical data analytics tool to bring the knowledge within IoT infrastructures to better meet the purpose of the IoT systems and support critical decision making. Although the topic of Big Data analytics itself is extensively researched, the disparity between IoT domains (such as healthcare, energy, transportation and others) has isolated the evolution of Big Data approaches in each domain. Thus, the mutual understanding across IoT domains can possibly advance the evolution of Big Data research in IoT.

In this work, we therefore conduct a survey on Big Data technologies in different IoT domains to facilitate and stimulate knowledge sharing across the IoT domains. Based on our review, this paper discusses the similarities and differences among Big Data technologies used in different IoT domains, suggests how certain Big Data technology used in one IoT domain can be re-used in another IoT domain, and develops a conceptual framework to outline the critical Big Data technologies across all the reviewed IoT domains.

Keywords: Big Data, data analytics, Internet of Things, healthcare, energy, transportation, building automation, Smart Cities.

*Fully documented templates are available in the elsarticle package on CTAN.

Download English Version:

<https://daneshyari.com/en/article/6872947>

Download Persian Version:

<https://daneshyari.com/article/6872947>

[Daneshyari.com](https://daneshyari.com)