

## Accepted Manuscript

Improving performance of classification on incomplete data using feature selection and clustering

Cao Truong Tran, Mengjie Zhang, Peter Andrae, Bing Xue, Lam Thu Bui



PII: S1568-4946(18)30543-X  
DOI: <https://doi.org/10.1016/j.asoc.2018.09.026>  
Reference: ASOC 5105

To appear in: *Applied Soft Computing Journal*

Received date : 19 June 2017  
Revised date : 20 September 2018  
Accepted date : 22 September 2018

Please cite this article as: C.T. Tran, et al., Improving performance of classification on incomplete data using feature selection and clustering, *Applied Soft Computing Journal* (2018), <https://doi.org/10.1016/j.asoc.2018.09.026>

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.

**\*Highlights (for review)**

## Highlights

- We propose the combination of imputation and clustering which can crucially reduce the computation time, and can achieve comparable accuracy to using only imputation. The key reason is that clustering can produce a smaller set of representative training data to perform imputation in the application process.
- We propose the combination of imputation and feature selection which also can remarkably reduce the computation time, and can achieve better accuracy than using only imputation. The underlying reason is that feature selection can generate better and smaller training data, and reduce the number of incomplete instances in the testing process.
- We investigate the combination of imputation, feature selection and clustering which not only can further speed up imputation, but also can improve classification accuracy, simultaneously.

Download English Version:

<https://daneshyari.com/en/article/11031608>

Download Persian Version:

<https://daneshyari.com/article/11031608>

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