

Accepted Manuscript

Efficient Dense Labelling of Human Activity Sequences from Wearables using Fully Convolutional Networks

Rui Yao, Guosheng Lin, Qinfeng Shi, Damith C. Ranasinghe

PII: S0031-3203(17)30520-4
DOI: [10.1016/j.patcog.2017.12.024](https://doi.org/10.1016/j.patcog.2017.12.024)
Reference: PR 6409



To appear in: *Pattern Recognition*

Received date: 6 July 2017
Revised date: 17 November 2017
Accepted date: 30 December 2017

Please cite this article as: Rui Yao, Guosheng Lin, Qinfeng Shi, Damith C. Ranasinghe, Efficient Dense Labelling of Human Activity Sequences from Wearables using Fully Convolutional Networks, *Pattern Recognition* (2017), doi: [10.1016/j.patcog.2017.12.024](https://doi.org/10.1016/j.patcog.2017.12.024)

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.

Highlight:

- A new method to address the multi-class windows problem in human activity recognition from sequences of activity data.
- Propose a fully convolutional network architecture for dense labelling and prediction of sequences of arbitrary length.
- The convolutional network method is much more efficient than CNN counter-parts.
- Release of a new activity dataset collected from hospitalised older people.
- Demonstrate the generalisability of the method on three datasets using sample- and activity-based measures.

Download English Version:

<https://daneshyari.com/en/article/6939185>

Download Persian Version:

<https://daneshyari.com/article/6939185>

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