

Deep Learning of Smartphone Sensor Data for Personal Health

Honggui Li ^{1,2}, Maria Trocan ²

¹ Yangzhou University, Yangzhou 225002, China, hgli@yzu.edu.cn

² ISEP, Paris 75006, France, maria.trocan@isep.fr

Abstract: This paper attempts to build the correlation between smartphone sensor data and personal health by deep learning. Firstly, the sensor data on smartphone is classified by deep autoencoders. For example, accelerometer data can be categorized by user motion states, such as standing, walking, and running. Secondly, the quantitative relationship between divided sensor data and human health is established. For instance, walking and running are helpful for human health. Finally, simulation experiment is conducted to evaluate the proposed methods. It is testified by experimental results that smartphone sensor data can reflect the healthy information of the user to some extent.