



ELSEVIER

Contents lists available at ScienceDirect

Data in Brief

journal homepage: www.elsevier.com/locate/dib

Data Article

Violent actions against children



Muhammad Alhammami*, Chee-Pun Ooi, Wooi-Haw Tan

Multimedia University, Malaysia

ARTICLE INFO

Article history:

Received 11 January 2017

Received in revised form

25 March 2017

Accepted 20 April 2017

Available online 2 May 2017

ABSTRACT

We present in this paper a novel dataset (MMU VAAC) for violent actions against children recognition. This original dataset has been recorded using Microsoft Kinect with the usage of a child mannequin. MMU VAAC dataset contains skeleton joints, depth, and RGB modalities.

© 2017 The Authors. Published by Elsevier Inc. This is an open access article under the CC BY license (<http://creativecommons.org/licenses/by/4.0/>).

Specification Table

Subject area	Computer vision
More specific subject area	Human action recognition
Type of data	Table of skeleton joints.csv file, depth images, RGB images
How data was acquired	Controlled recording
Data format	Raw and Processed
Experimental factors	Indoors, using Microsoft Kinect sensor and child mannequin
Experimental features	Data mining was performed after dataset capturing.
Data source location	Digital Home Lab, Faculty of Engineering, Multimedia University, Cyberjaya, Malaysia
Data accessibility	Raw skeleton joints modality is attached to this paper.

* Corresponding author.

E-mail address: dr.mhammami@outlook.com (M. Alhammami).

Value of the data

- The recognition of violence against children is a critical application in the field of human action recognition which still has not gain any interest [1].
- There are no previous efforts to recognize physical abuses against children.
- The main difficulty in capturing a dataset of child abuses is that we cannot let any child face any abuse. We cannot also install cameras in schools and houses without permission of authorities. There are also not enough recorded cases of child abuses on YouTube.
- All these aspects motivated us to record a novel dataset of physical abuses against children but using a child mannequin.
- Now, using this dataset, researchers and developers can instantly analyze the composition of abuse activities [2] to immediately start developing prototypes for systems which recognize violence against children using computer vision techniques [3].

1. Data

The VAAC dataset contains RGB, depth and skeleton data of all recorded scenes. RGB-D images carry files' names correspondence to the frame stamp from the device. The skeleton joints file contains the following attributes: joints coordinates in 3D space (x,y,z) for both the adult actor and the child and their IDs besides the frame time stamp and the mannequin (Fig. 1).

The recorded actions contain:

- Violent actions: kicking, punching, throwing, shoving, strangling, and slapping.
- Nonviolent actions: touching, hugging, lifting, laying down, etc.

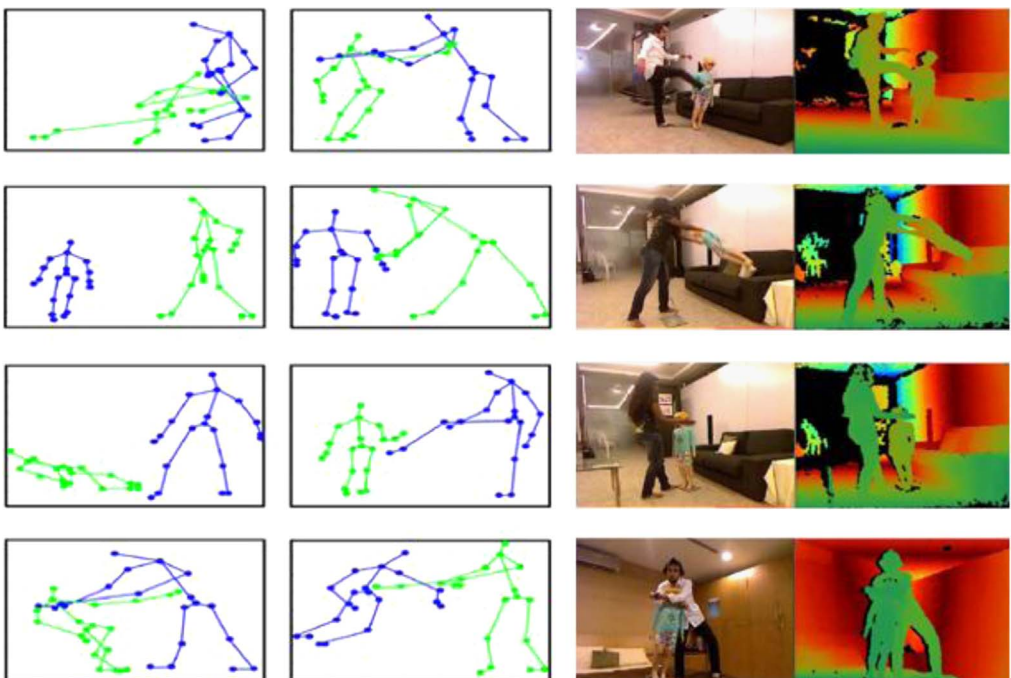


Fig. 1. Shots of RGB-D modalities and representation of skeleton joints of MMU VAAC dataset.

Download English Version:

<https://daneshyari.com/en/article/4765154>

Download Persian Version:

<https://daneshyari.com/article/4765154>

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