Loughborough University

COP324 - Project preparation

Deliverable I.

Title of the project: AI Assisted Bone Fracture Detection and Localization from Multi-view X-Ray Images
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Abstract. Artificial intelligence (AI) is developing remarkable progress in clinical diagnosis and even amount of researchers have devoted to this filed for making more contributions. however, more advanced models and methods still should be improved by using deep learning, such as detecting bone fracture automatically or determine the possibility of cancer for the patients by using deep learning methods. In this paper, we proposed a novel and high effective method to implement the fracture detection for the various human bones. This method can annotate the images obtained from MURA dataset automatically and detect whether the bone fracture happens or not by using the improved model based on Faster R-CNN and other models. Meanwhile, this method results will compare with the judgement of the radiologists and orthopedists.
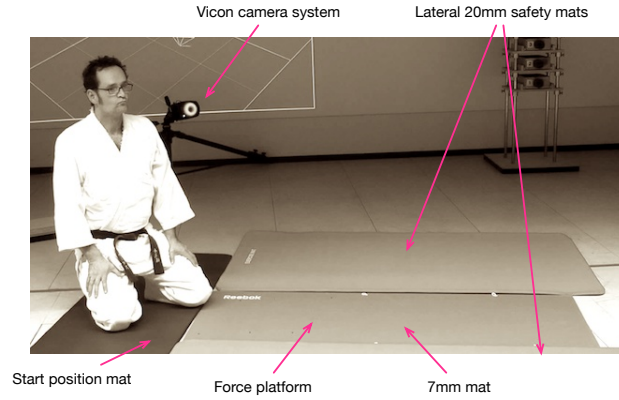
Figure 1: Here goes the caption of the figure.

1 Introduction

2 Aims and Objectives

3 Main and Methodology

4 Project Plan

5 Reference

5.1 This is a subsection

5.2 Tables and Figures

Figure 1 is an example of a figure.

Here we show some numbers in Table 5.2

5.3 Equations

Equation 1 is an example of a nice equation.

$$\frac{\partial O}{\partial I_i} = \sum_j \frac{\partial O}{\partial h_j} \frac{\partial h_j}{\partial S_j^1} \frac{\partial S_j^1}{\partial I_i} \quad . \tag{1}$$

Country List			
Country Name or Area Name	ISO ALPHA 2 Code	ISO ALPHA 3 Code	ISO numeric Code
Afghanistan	AF	AFG	004
Aland Islands	AX	ALA	248
Albania	AL	ALB	008
Algeria	DZ	DZA	012
American Samoa	AS	ASM	016
Andorra	AD	AND	020
Angola	AO	AGO	024

Table 1: Here is the caption of the table

As equation 2 shows, there is no limit to your fantasy when it comes to writing equations.

$$\frac{\partial^2 O}{\partial I_i^2} = \sum_j w_{ij}^0 \left[(1 - 2h_i)h_j(1 - h_j)w_{ij}^0 \frac{\partial O}{\partial h_j} + \right.$$
$$\left. + h_j(1 - h_j)\left(\frac{\partial^2 O}{\partial I_i \partial h_j} \right) \right] \tag{2}$$

5.4   Citing

Insert references in the bibtex file using the bibtex format. Latex makes sure that references are displayed correctly. Make sure you use journal papers, books and conferences papers predominantly. These are authoritative, peer-reviewed sources. Webpages can be occasionally cited, but are considered as less authoritative. the ski

Typically, when you make a statement that is substantiated by information in a source document, you are require to cite the source (**?**). Sometimes more sources substantiate your statement (**??**).

Sometimes you want to use a citation as subject of your sentence. For example, **?** introduce basic concepts in reinforcement learning.