Using Conditional Random Fields for Rover Locomotion Diagnosis

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Abstract— To write. Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum.

I. Introduction

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II. Context / motivations

what is the problem (could be made short here), and why it is interesting to solve it?

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III. State of the art

focussed on the problem at hand – that is, locomotion - Cf work from Vandi Verma @ CMU (application of particle fitering) - (mention Iagnema's work ? hardly applicable to our case)

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IV. Problem statement

what are the issues ? Why is it difficult ?

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V. Overview of the approach

why did you chose it ? (ideally, because is copes tiwh the difficulties stated above)

(2, 3 and 4 can be swapped, or even mixed)

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VI. Detailed presentation (how you did it)

hat are the data you have?

Many TODOs here: - Ground truth: how to obtain it? What are the issues with the way we assess it? - What faults? either
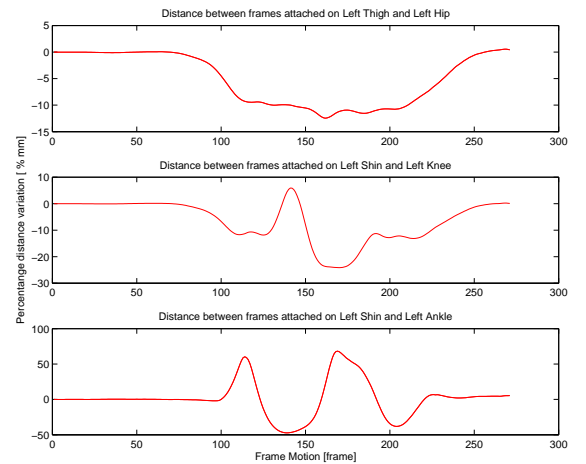

Fig. 1: Variation of the distance between real markers on the left leg of human actor.

binary, or identified faults (name them) TODO: what are the faults we have with Mana? - Compare with "naive Bayes", "Markov field approach"

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VII. Results

(can also be interleaved in section 5) TODO: provide the results, anaylyse them

VIII. Conclusions / Discussions

What is good with our approach? What if bad? How can we alleviate the bad things? What would be the future work, either on the problem at hand, or more globally building upon the presented work (namely, go towards locomotion "control")