

Team name	Seawolf Vision
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Team website URL (if any)	https://sites.google.com/site/sbuchalearnchallenge2014/?pli=1

Title of the contribution	? N/A ?
<p><i>General method description</i></p>	<p>I will be closely following the work of Deva Ramanan, who has consistently produced highly ranked research papers in topics such as pose estimation, object detection, and deformable part models. I will be using the paper Articulated Pose Estimation with Flexible Mixtures of Parts by Yi Yang and Deva Ramanan to guide my work. I will also be using the publicly available code toolbox that facilitates this paper. I will have to make several modifications to the code so that I better match what is required in the ChaLearn Challenge as well as attempt to increase the performance to limb detection.</p>
<p><i>References</i></p>	<p>Y. Yang, D. Ramanan. "Articulated Pose Estimation using Flexible Mixtures of Parts" Computer Vision and Pattern Recognition (CVPR) Colorado Springs, Colorado, June 2011.</p> <p>Y. Yang and D. Ramanan, Flexible mixtures of parts for articulated pose detection, release 1.3, http://phoenix.ics.uci.edu/software/pose/.</p> <p>D. Ramanan, 'Learning to parse images of articulated bodies,' in Advances in Neural Information Processing System, 2007.</p> <p>Hamed Pirsiavash, Deva Ramanan, Charless Fowlkes, 'Globally-Optimal Greedy Algorithms for Tracking a Variable Number of Objects,' Computer vision and Pattern Recognition CVPR 2011, Jun 2011.</p>

Describe data preprocessing techniques applied (if any)	Wrote several scripts (bash and python) for organizing data and preprocessing for learning
<i>Describe features used or data representation model (if any)</i>	<i>HoG</i>
<i>Dimensionality reduction technique applied (if any)</i>	
<i>Compositional model used, i.e. pictorial structure (if any)</i>	<i>MRF Deformable Parts Model</i>
<i>Segmentation strategy used (if any)</i>	

Large scale strategy (if any)	Pose-estimation without segmentation
<i>Temporal coherence and/or tracking approach considered (if any)</i>	
<i>Transfer learning strategy (if any)</i>	
<i>Other technique/strategy used not included in previous items (if any)</i>	
<i>Method complexity</i>	

Qualitative advantages of the proposed solution

Fairly accurate for finding the region of interest (general location of limb), I should have used some segmentation techniques on top of this to pinpoint the pixel-level limb..

Results of the comparison to other approaches (if any)

Not sure of how others are doing... The leader board seemed non-existent.

Novelty degree of the solution and if it has been previously published

Not original. Mostly examining other works in the field. Editing open-source code, but nothing that stands out as absolutely novel.

Language and implementation details (including platform, memory, parallelization requirements)

Used MATLAB mostly and a couple of bash/python scripts for data-processing.

Did everything on my Mac Book Air (8gb memory)

Human effort required for implementation, training and validation?

Training/testing expended time?

*Several hours for training,
~ one hour for testing*

General comments and impressions of the challenge

Great challenge, I just wish I had more time during the semester to focus on this challenge.

Awesome organization :)