## Related Work:

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| Authors | Papers | relevance |
| Quoc.V.Le | BUILDING HIGH-LEVEL FEATURES USING LARGE SCALE UNSUPERVISED LEARNING (2012) **1** | Builds high level class specifics feature detectors from unlabeled data, it uses far too much computational power though and is unrealistic to be applied in our project. |
| Franck Mamalet | Inertial Gesture Recognition with BLSTM-RNN (2016) **2** | Using an accelerometer and gyrometer provides a model in 6D of gesture. Possibly another method of detecting actions without the use of image recognition. |
| Christian Wolf | ModDrop: Adaptive Multi-Modal Gesture Recognition (2016) **3**, Multi-scale Deep Learning for Gesture Detection and Localization (2014) **4** | An unsupervised model is used to determine gestures and near range action, extremely suited to our project, except it requires initialization of the individual modalities. |
| Christophe Garcia | PixelTrack: a fast-adaptive algorithm for tracking non-rigid objects (2013) **5** | It’s a fast model for tracking generic moving objects, and outperforms state of the art models. It could be used to track an arm segment. |

1 <https://arxiv.org/pdf/1112.6209.pdf&amp>

2<https://link.springer.com/chapter/10.1007/978-3-319-09903-3_19>

3<https://arxiv.org/abs/1501.00102>

4<https://link.springer.com/chapter/10.1007/978-3-319-16178-5_33>

5<https://pdfs.semanticscholar.org/25a3/ae06419787770f8040938232a77f29bd0bc2.pdf>