On the Role of Context Length for Feature Extraction and Sequence Modeling in Human Activity Recognition



Shruthi Hiremath



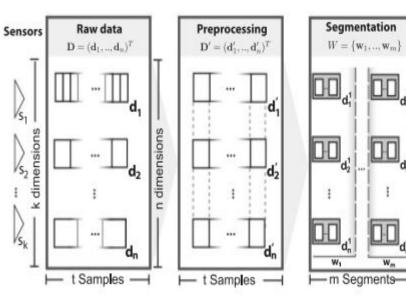
Dr. Thomas Ploetz



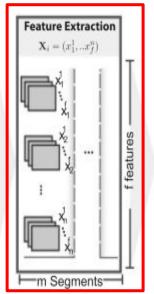


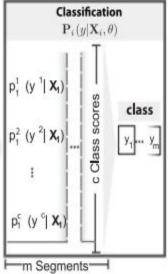
HUMAN ACTIVITY RECOGNITION

Time-series analysis problem



Feature Extraction

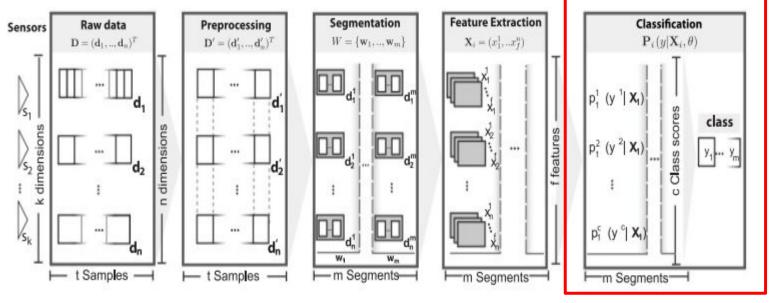




Andreas Bulling, Ulf Blanke, and Bernt Schiele. 2014. A tutorial on human activity recognition using body-worn inertial sensors. ACM Comput. Surv. 46, 3, Article 33 (January 2014), 33 pages. DOI:https://doi.org/10.1145/2499621

HUMAN ACTIVITY RECOGNITION

Time-series analysis problem

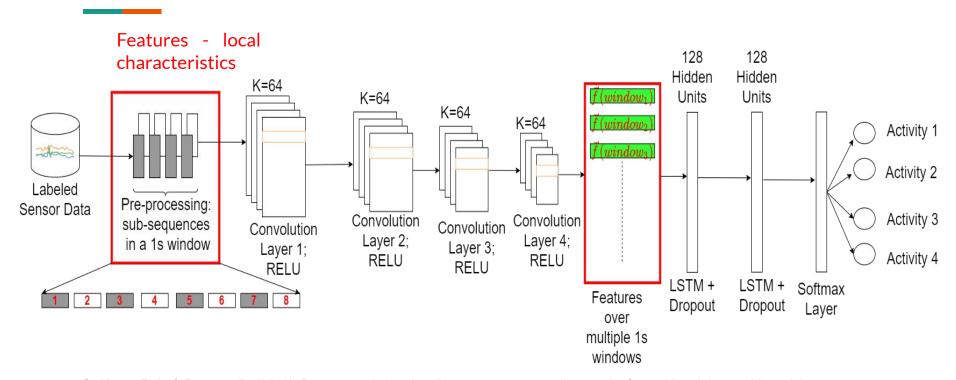


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Sequential

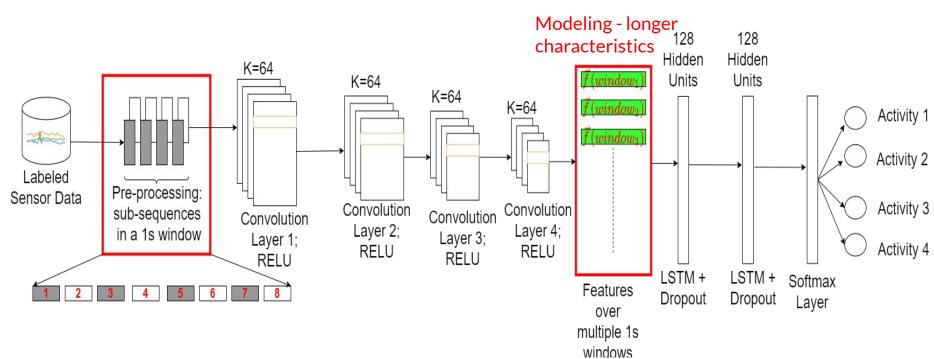
Modeling

MODIFIED DeepConvLSTM FOR CONTEXT LENGTHS



Ordóñez, F. J., & Roggen, D. (2016). Deep convolutional and lstm recurrent neural networks for multimodal wearable activity recognition. *Sensors*, *16*(1), 115.

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EXPERIMENTAL EVALUATION

