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IDNet: Smartphone-based Gait Recognition with Convolutional Neural Networks

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Highlights

- A deep-learning based authentication system from inertial signals is proposed
- This framework relies on new transform to make inertial signals rotation invariant
- We propose a robust walking-cycle extraction algorithm with template adaptation
- We combine neural networks with SVM into a new multi-step authentication technique
- An extensive experimental campaign is presented, to validate the proposed system

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