Handcrafted vs automatic features for user authentication based on mouse dynamics

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Mouse dynamics is a type of behavioral biometrics which can be used to continuously authenticate the user of a computer. Traditional authentication systems in this field use handcrafted features with classical machine learning algorithms. This work presents deep neural networks designed for automatic feature extraction in the field of mouse dynamics. We compare performances of the systems using handcrafted and automatically extracted features. Our user authentication system was tested on two public datasets, demonstrating the viability of the deep neural networks for automatic feature extraction.

References

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