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User Behavioural Anomaly Detection for Shared User Accounts

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ABSTRACT

Subscription based systems have user accounts to manage users. These accounts must be kept specific for the specified user for best outcomes. Cyber security aspects aside, users tend to share these credentials with other personnel for client-side advantages. But this can result in various issues such as resource over-usage, information leakage etc. for the service provider.

A user behavioural study is proposed as a solution to detect any conflict of interests in a specified dataset. A deep learning approach incorporating LSTM layers is identified as the best solution.

The proposed solution is presented as a tool for developers to create the model with the preferred configurations after analysing models with different layers and configurations. Also, the presented solution includes instructions on the integration of the model.

Keywords: User account, Shared account, User recommendation, Long short-term memory, Neural network, Anomaly detection

Subject descriptors: Computing methodologies => Machine learning => Machine learning approaches => Neural networks