

## The Application of Fuzzy Set Theory to Mobile Internet Advertisement Fraud Detection

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**Abstract :** This paper presents the application of fuzzy set theory to implement of mobile advertisement anti-fraud systems. Mobile anti-fraud is a method aiming to identify mobile advertisement fraudsters. One of the main problems of mobile anti-fraud is the lack of evidence to prove a user to be a fraudster. In this paper, we implement an application by using fuzzy set theory to demonstrate how to detect cheaters. The advantage of our method is that the hardship in detecting fraudsters in small data samples has been avoided. We achieved this by giving each user a suspicious degree showing how likely the user is cheating and decide whether a group of users (like all users of a certain APP) together to be fraudsters according to the average suspicious degree. This makes the process more accurate as the data of a single user is too small to be predictable.

**Keywords :** mobile internet, advertisement, anti-fraud, fuzzy set theory

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