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Ad Fraud Detector for Mobile Applications

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Abstract: *Ad fraud happens in cost per click ad networks where publishers charge advertisers for each click. Ad fraud is posing the huge loss to the mobileadvertising industry. The conventional technologies use ensemble machine learning methods, neglecting the cost of incorrect classification for a fraud publisher is higher than a normal publisher. An effective classification model for variable ad fraud is proposed in this paper. Cost-sensitive Back Propagation Neural Network is combined with the novel Artificial Bee Colony algorithm in this research (CSBPNN-ABC). Feature selection is synchronously optimized with BPNN connection weights by ABC to reduce the interaction between features and weights. Cost Parameters are added to BPNN by correcting the error function. Experiments on real world click data in mobile advertising show that its superior classification performance compared with the state-of-the-art technology.*

Keywords: Click Fraud, Cost-sensitive Back Propagation Neural Network, Artificial Bee Colony, Feature Selection.

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