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Abstracts

Risk Based Security and Automated Decision Making in Airport Checkpoints: Bias Detection towards Smarter Security and Fairness

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As profiling and automated processing of information emerge as enablers for more efficient, risk-based and smarter security, growing concerns on ethics and privacy are reflected on the adapting regulatory and legal framework, as expressed in relevant sections of the General Data Protection Regulation (GDPR). In this context and by examining the airport checkpoint as the most challenging and regulated security case we propose a solution monitoring the fairness of intelligent surveillance systems of an airport and any critical infrastructure. The embedded algorithms receive input from distributed sensors and high-level information and infer suspicious incidents and visitors' trustfulness level. However, the system may result in biased conclusions because of biased sources and/or algorithms. Consequently, we suggest a bias detection system, which exploits a structured representation of Legal regulations, and compare them to association rules extracted by the input and output datasets.

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