UNIVERSITY OF TARTU
Institute of Computer Science
Computer Science Curriculum

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Transaction labeling, identifying specific transfers of concern

Bachelor's Thesis (9 ECTS)

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Tartu 2024

Abstract

Transaction labeling, identifying specific transfers of concern

Abstract: Transaction monitoring is essential in financial systems to comply with regulatory standards and prevent financial crimes. This thesis develops a transaction labeling system for Wise, focusing on detecting and categorizing suspicious transactions to enhance anti-money laundering (AML) efforts. The proposed system improves Wise's operational processes and existing transaction monitoring by eventually utilizing dynamic and adaptable machine learning techniques to better identify and address new financial crime strategies. The implementation includes a new backend architecture and a frontend interface integrated with an existing service for efficient transaction labeling. While centered on AML requirements, the system is designed to be adaptable for use by other financial crime teams within Wise.

Keywords: Transaction monitoring, AML, machine learning, financial crimes, Wise

CERCS: P175 Informatics, systems theory

Tehingute märgistamine, konkreetsete murettekitavate ülekannete tuvastamine

Lühikokkuvõte: Tehingute jälgimine on finantssüsteemides oluline, et tagada vastavus regulatiivsetele standarditele ja vältida finantskuritegusid. Käesolev lõputöö arendab Wise'i jaoks tehingute märgistamise süsteemi, keskendudes kahtlaste tehingute tuvastamisele ja kategoriseerimisele, et tõhustada rahapesuvastast (AML) võitlust. Kavandatav süsteem parandab Wise'i operatiivseid protsesse ja olemasolevat tehingute jälgimist, kasutades tulevikus dünaamilisi ja kohanemisvõimelisi masinõppetehnikaid, et paremini tuvastada ja lahendada uusi finantskuritegevuse strateegiaid. Rakendus hõlmab uut taustsüsteemi (ingl *backend*) arhitektuuri ja olemasoleva teenusega integreeritud kasutajaliidest, mis võimaldab tõhusat tehingute märgistamist. Kuigi keskendutakse AML nõuetele, on süsteem kavandatud selliselt, et seda saaks kohandada ka teiste finantskuritegevuse meeskondade poolt Wise'is.

Võtmesõnad: Tehingute jälgimine, AML, masinõpe, finantskuriteod, Wise

CERCS: P175 Informaatika, süsteemiteooria

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