Incorporating Digital Forensics Capability into the Blockchain Assets

Summary

The main objective of the position is to research incorporating data analytic capabilities into the blockchain systems for digital forensics readiness. The candidate will also take a key role in the development of an innovative blockchain-based application in an interdisciplinary team.

Research field:	Information and communication technology
Supervisors:	Thomas Hoffmann Prof. Dr. Hayretdin Bahsi
Availability:	This position is available.
Offered by:	School of Information Technologies Department of Software Science
Application deadline:	Applications are accepted between June 01, 2022 00:00 and June 30, 2022 23:59 (Europe/Zurich)

Description

Despite various automatic built-in functionalities, it is imperative to incorporate the relevant logging, data analytics, and forensics functionalities into the blockchain applications to resolve disputes among parties, originating technological or organisational matters, or handling security incidents due to the malicious activities of insider or external threat actors. Although a considerable body of data analytics and forensics research has focused on the identification of ransomware payments, scams, or security attacks in cryptocurrency applications, we contemplate that other high-stake blockchain applications should be developed based on the forensic readiness principle that is systematically considered during the system development life-cycle. Data analytics and machine learning algorithms may play a prominent role for this purpose due to the inherently data-intensive character of the application domain.

Support for Teaching and Supervising Activities

The candidate will take part in developing the courses and supervising students regarding data analytics and its application to blockchain assets.

Funding Source:

EU Grant – “Conflict Resolution with Equitative Algorithms 2”

Candidate’s Background and Knowledge

This position requires software development capability and experience in blockchain or data analytics concepts. Familiarity with machine learning topics is a plus. Being open to interdisciplinary studies and possessing communication skills with experts in other fields are required.

To get more information or to apply online, visit https://taltech.glowbase.com/positions/554 or scan the the code on the left with your smartphone.