UTTKARSH GOEL

STUDENT, MASTER OF INFORMATION SYSTEMS SECURITY AND ASSURANCE

USING HEALTHCARE AUTHORITY AND PATIENT BLOCKCHAINS TO DEVELOP A TAMPER PROOF, RECORD TRACKING SYSTEM

In today's era, data security is a pervasive problem. Since its inception, blockchain technology has shown promising application to many areas. The technology's emergence provides a fascinating solution to address security issues in distributed systems. From the first application of blockchain as Bitcoin to smart contracts, it has been applied to many fields. This research introduces a blockchain model for the healthcare sector that combines healthcare authority blockchains and private patient blockchains for developing a tamper-proof, permission tracking system which ensures increased security and privacy while improving record and permission redundancy. We also apply this to Canadian healthcare privacy legislation in Alberta.

Research Advisors: Prof. Ron Ruhl, Dr. Pavol Zavarsky