The Role of Finite State Machines in Blockchain Smart Contracts

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The blockchain revolutionizes the creation of both scalable information technology systems and diversified applications by integrating the increasingly popular artificial intelligence, cloud computing, and big data. However, a significant number of smart contracts deployed in practice suffer from security vulnerabilities, which enable malicious users to steal assets from a contract or to cause damage. Regarding to issues, a finite state-based approach creation may improve the security and protection of the smart contracts. In this paper, the background information about Blockchain smart contracts and finite state machines will be explained. Furthermore, we focus more security-related problems for smart contracts. This study provides an overview of internet of things and blockchain smart contracts and describes a forward-looking direction.