

**CRYPTO INHERITOR**  
**AN AUTOMATION SYSTEM FOR CRYPTO**  
**INHERITANCE**

**Mr. Rasula Yadithya**

A dissertation submitted in partial fulfilment of the requirements for the  
Bachelor of Engineering (Honours) in Software Engineering

**School of Computing**  
**Informatics Institute of Technology, Sri Lanka**  
**in collaboration with**  
**University of Westminster, UK**

**2023**

## ABSTRACT

Crypto currencies allow users to execute seamless, quick and cost-effective transactions globally without relying on intermediaries. This is made possible due to its ledger-based and decentralized architecture. However, because of the lack of a recognized, central authority governing these crypto assets, it makes the recovery of stolen or lost crypto extremely hard or even impossible. Therefore, in the instance that a crypto holder was to pass away without leaving behind explicit instructions on how to access their crypto assets, those tokens would be lost forever.

With the prevalence of smart contracts allowing predetermined term-based executions, it opens up an avenue for new methods of crypto inheritance. The utilization of smart contracts, with blockchain oracles to obtain real-world data could be used to formulate an architecture to automate this process. CryptoInheritor focuses on introducing such a solution.

The author was able to create a solution with roughly a cost of 0.04 ETH per month when deployed to the Sepolia test network.

**Keywords:** Smart Contract Automation, Blockchain Oracles, Crypto currencies, Crypto Inheritance, Ethereum

### Subject Descriptors:

- Information Systems → Information Storage and Retrieval → General
- Computer Applications → Administrative Data Processing
- Computing Milieux → Computers and Society → Electronic Commerce