CLAIMS

WHAT IS CLAIMED IS:

1. A system for assessment of a risk score for a non-fungible token transacted on a blockchain comprising:

a blockchain capable of implementing smart contracts for the creation, storing, and transaction of non-fungible tokens;

a processor-based server in electronic communications with the blockchain;

a database in electronic communications with a processor-based server capable of storing and retrieving data;

the processor-based server configured to:

receive a request for assessment of a specific non-fungible token on the blockchain;

scan the blockchain to identify blocks within the blockchain containing a smart contract for the specific non-fungible token;

retrieve metadata embedded within the identified blocks containing a smart contract for the specific non-fungible token;

derive an ownership history of the specific non-fungible token from the retrieved metadata;

scan the blockchain to identify a block within the blockchain containing the last transaction for the specific non-fungible token;

retrieve smart contract code from the identified block containing the last transaction for the specific non-fungible token;

generate a provenance score based on the derived ownership history of the specific non-fungible token;

generate a smart contract score based on the retrieved smart contract code for the specific non-fungible token;

generate a permanence score based on the retrieved smart contract code for the specific non-fungible token; and

generate a comprehensive risk score for the specific non-fungible token based on the generated provenance score, smart contract score, and permanence score for the specific non-fungible token.

2. The system for assessment of claim 1, wherein the processor-based server is further configured to:

input the derived ownership history of the specific non-fungible token into a provenance score model implemented by the processor-based server; and

generate the providence score using the provenance score model.

3. The system for assessment of claim 1, wherein the processor-based server is further configured to:

input the retrieved smart contract code for the specific non-fungible token into a smart contract score model implemented by the processor-based server; and

generate the smart contract score using the smart contract score model.

4. The system for assessment of claim 1, wherein the processor-based server is further configured to:

input the retrieved smart contract code for the specific non-fungible token into a permanence score model implemented by the processor-based server; and

generate the permanence score using the permanence score model.

5. The system for assessment of claim 1, wherein the processor-based server is further configured to:

input the generated providence score, the smart contract score, and the permanence score into a comprehensive risk score model implemented by the processor-based server; and

generate the comprehensive risk score using the comprehensive risk score model.

6. The system for assessment of claim 1, wherein the provenance score is reflective of the ownership history of the specific non-fungible token.

7. The system for assessment of claim 1, wherein the permanence score is reflective of how the retrieved smart contract code references the underlying asset of the specific non-fungible token.

8. The system for assessment of claim 1, wherein the smart contract score is reflective of code-related risk associated with the specific non-fungible token.