

FOR MASTER'S DEGREE STUDENTS: PROPOSAL OF THESIS IN COLLABORATION WITH GENUINO BLOCKCHAIN TECHNOLOGIES SRL

1. Company

Genuino Blockchain Technologies is a start-up founded in April 2018 with headquarters in Italy and the United States, which uses blockchain, IoT and AI technology to enhance high quality products supply chain's transparency and traceability. Companies are now entering a new era of transparency in which demand for product provenance will continually grow, and Genuino intends to be at the forefront of driving this agenda forward, future-proofing the modern supply chain.

2. Context

In a world of post-truth and unsubstantiated media, consumers are looking for brands to court them with transparency, simplicity and evidence. Checking for yourself, understanding and collecting evidence of the product you are purchasing are the primary needs of today's consumers. In order to be able to respond appropriately, and win consumer confidence, companies themselves need transparency throughout the supply chain. The Genuino solution was created to satisfy these needs through the use of a decentralized protocol for the certification of high quality products. The ecosystem focuses on the data, minimizing the possibility of manipulation and exponentially increasing its authenticity.

3. Technology

Genuino develops an interface solution based on Ethereum blockchain combined with smart sensors and artificial intelligence. The Genuino ecosystem is built on the truthfulness of information that is confirmed by the network itself at different levels. The maximum level of information authenticity is guaranteed through specific IoT sensors, identified by cryptographic technology.

4. MVP – The project

The project will be developed applied to a real industrial case in the textile market and will be a demonstrative MVP of the technology that Genuino will implement in its ecosystem.

The following topics will be analysed and developed:

- Anti-counterfeiting;
- Product ownership and its transfer;
- Supply chain traceability.

Genuino intends to implement a solution to fight counterfeiting and to enhance the conservation of the value (authenticity) of the product, tracing the change of the ownership across the chain.

The solution to be implemented must:

- Guaranteeing the authenticity of the product and enhancing the quality of the product;
- Tracing the basic constituent elements of the product;
- Tracking the ownership product.

The used blockchain will be Ethereum, with consequent development in Solidity language.

Duration of the project: Start: September 2019 / End: December 2019-January 2020

5.Profiles

The selection will be made for the following profiles:

- A junior Back End;

Knowledge of the following languages is required:

- JavaScript and TypeScript
- Node.js
- MySQL or MariaDB

Even minimal knowledge of Solidity and Web3.js language will be considered a plus.

- A junior Front End;

Knowledge of the following languages is required:

- CSS, Bootstrap, HTML
- React

Even minimal knowledge of Solidity and Web3.js will be considered a plus.

Both will be part of a team composed of Senior profiles and will be guided during the development. It is also required a good predisposition to respect the timing and planning phases.