Count of points: 100

## Distributed Lab

694d0f5a7afe6fbc99cb

Issued on: 30.05.2018

## Certificate

This certifies that

**Test Name** 

## Blockchain and Distributed Systems

## TOPICS

Ethereum capabilities and differences from Bitcoin • Ethereum basics (ether currency, gas, EOA, contracts) • Must-know components (Metamask, Etherscan) • Transaction structure (nonce, value, receiver, gas price, gas limit, data, signature) • Public and private keys for ECDSA Block structure (timestamp, gas limit, nonce, header) • Lifecycle of the smart contract • Hardhat & Remix • Smart contract ABI Working with money • Single-threaded development • Constant & static & dynamic data types • Functions (view, payable) • Events and error handling • Calling other contracts • Stack, memory, storage, calldata, returndata • Inline assembly brief • Libraries (external, internal) Proxy, delegatecall • Working with signatures & precompiled contracts • Bytecode structure • What is tokens ERC20, ERC721, ERC1155



Artem Chistyakov Solidity developer at Distributed Lab

Olena Voloshchuk, PhD **Education Manager at Distributed Lab**