

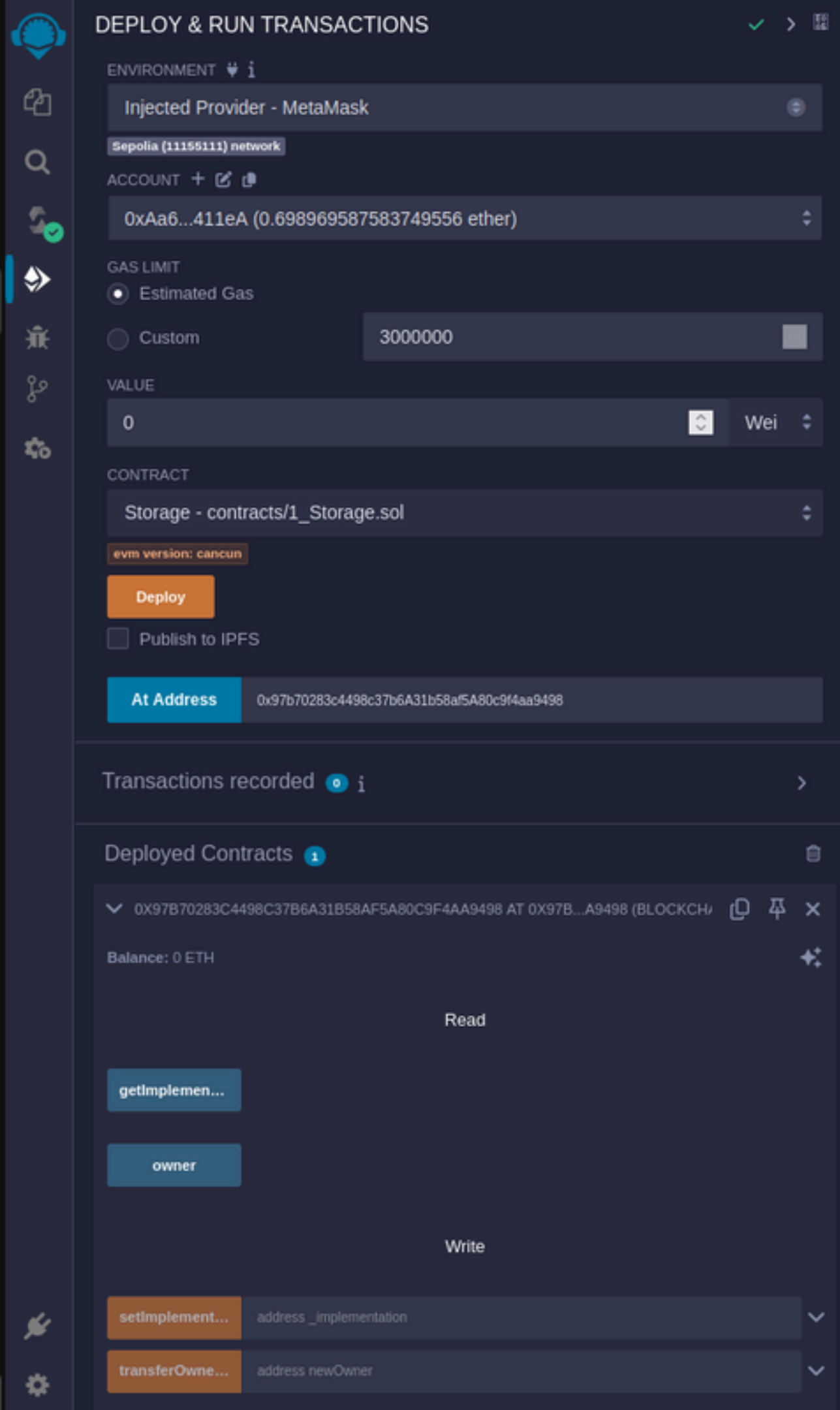


REMIX IDE add-on

**Fetch ABI from
blockexplorers in
REMIX IDE**

ETHGlobal
Hackathon
Bangkok

Doris Benda



Problem

- You have to have source files/ABI files on your local computer to load/compile an interface for a contract in REMIX IDE.
- Every time you re-open the REMIX IDE in a new browser/computer, you have to re-load above files.
- Cannot interact with third-party smart contracts in REMIX IDE easily.
- You have to switch between block explorers and REMIX IDE backwards and forward.

What did I do during the Hackathon?

- Cloned the REMIX IDE.
- Expanded the REMIX IDE to fetch the ABI from blockScout (for proxy and implementation contracts that are verified).
- UI work to get the new interface exposed.
- Talked to the `BlockScout` team at their physical booth about the future work with regards to unverified contracts:
<https://github.com/blockscout/blockscout/issues/6203>

Demo Time



Why do smart contract devs benefit from this new feature in REMIX IDE



- No need to search for source files/ABI files on your local computer anymore.
- Saves engineering time.
- Simplifies interactions with contracts from third parties.
- No need to switch between block explorers and REMIX IDE.
- Easier onboarding of new engineers if they can stay at one tool.



About ME



Doris Benda

<https://github.com/DOBEN>

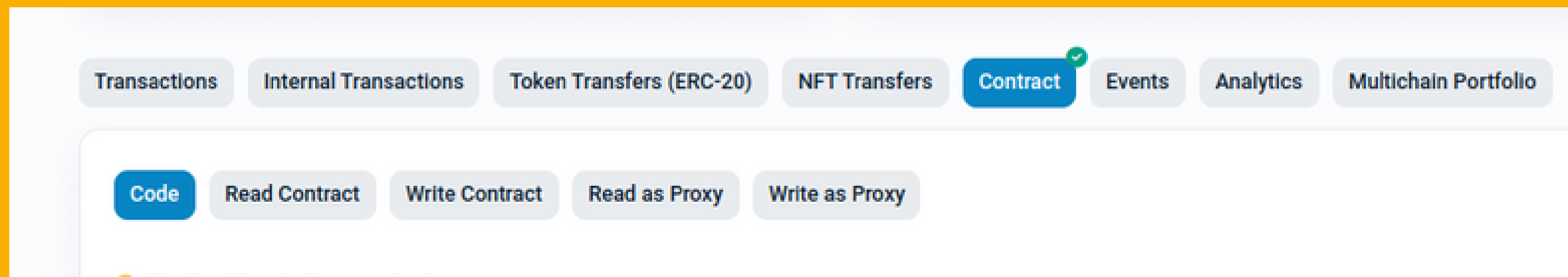


Past Work Future Work

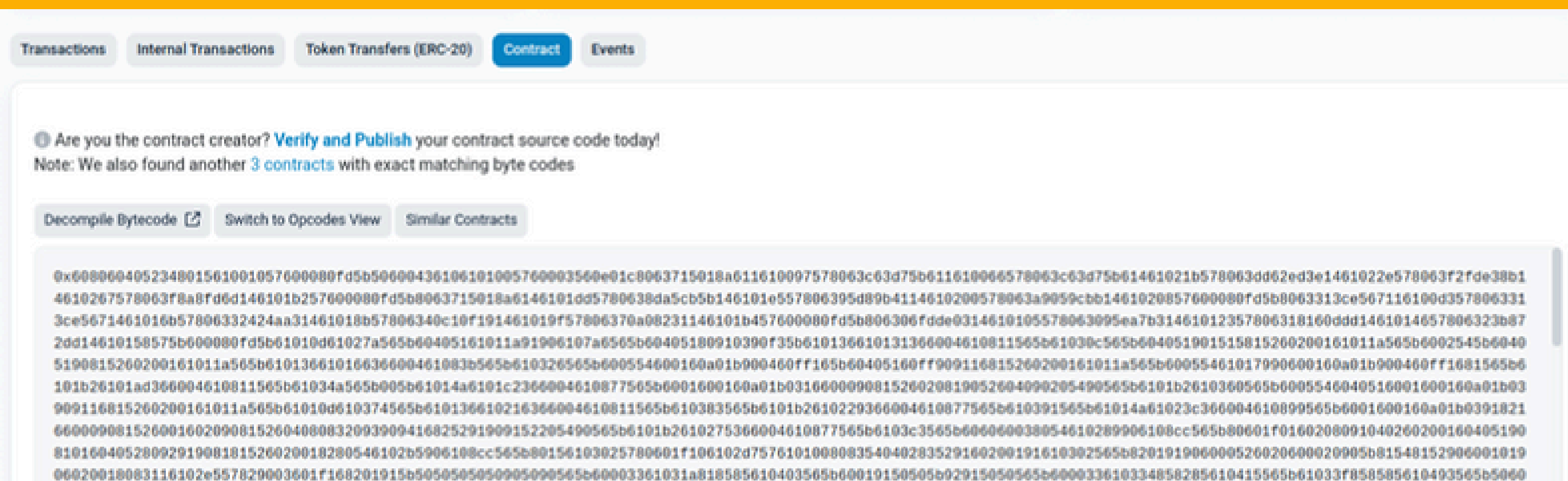
**Interact with
unverified contracts
via REMIX IDE**

Problem 1

- No support to interact with unverified contracts on Etherscan, Blockscout or Remix.
- No `Read/Write` tab available on Etherscan, Blockscout or Remix for unverified contracts.



Verified
Contract



Unverified
Contract

Problem 2

- Calling unverified contracts return a blob of “human-unreadable” data.
- No ABI available to decode return parameters for unverified contracts.

[illegible]

Unverified Contract

```

"0x1Bc98A66d0b1898b850E768d185B1a4320F97727",
[
  "0x1Bc98A66d0b1898b850E768d185B1a4320F97727",
  "0xcfcf405b5e052D4FE6cbE8f33119e2A412Dc7064"
],
"what",
"7766577",
[
  "1",
  "2",
  "3",
  "4",
  "5",
  "6",
  "7",
  "8",
  "9"
],
"666",
[
  "6666",
  "88888888"
],
"0x8886543210",
[
  "0x0666543210",
  "0x5556543210"
],
"0x9100"
]

```



Verified Contract with ABI

Solutions

- Integrate `evMole` library into Remix to decode the `function selectors` and `input parameters` from the raw bytecode.

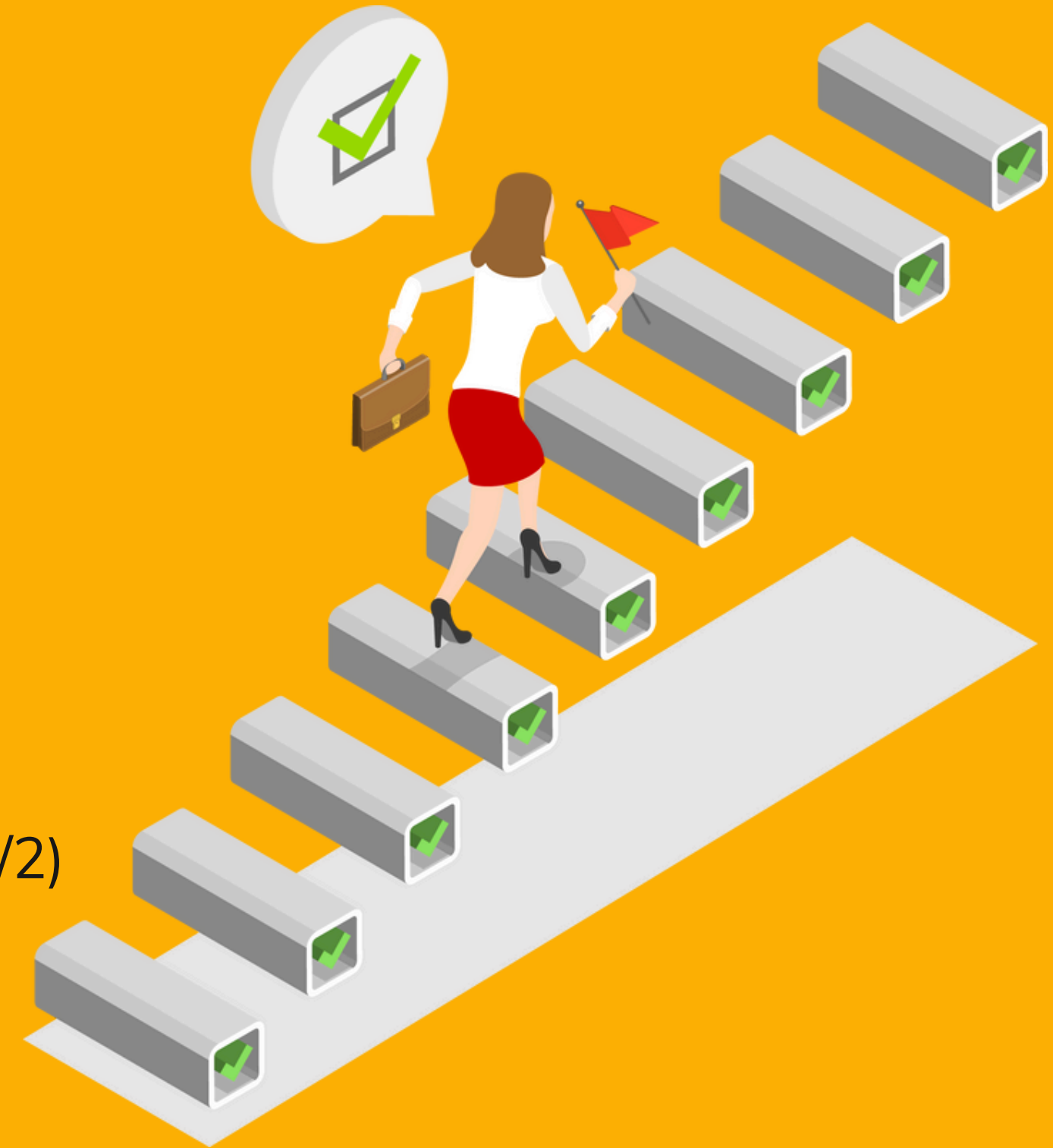
<https://github.com/cdump/evmole>

- Integrate `abi-guesser` library into Remix to decode `return Paramter` types from ABI-encoded blob data.

<https://github.com/openchainxyz/abi-guesser>

Past And Future Work

- [ContractCompanion]
(<https://github.com/DOBEN/ContractCompanion>)
- [Remix MVP for unverified contracts]
(<https://github.com/DOBEN/remix-project>)
- [BlockScout Issue]
(<https://github.com/blockscout/blockscout/issues/6203>)
- [MileStones]
(<https://github.com/DOBEN/ContractCompanion/issues/2>)





Thanks!