



# Contract Companion

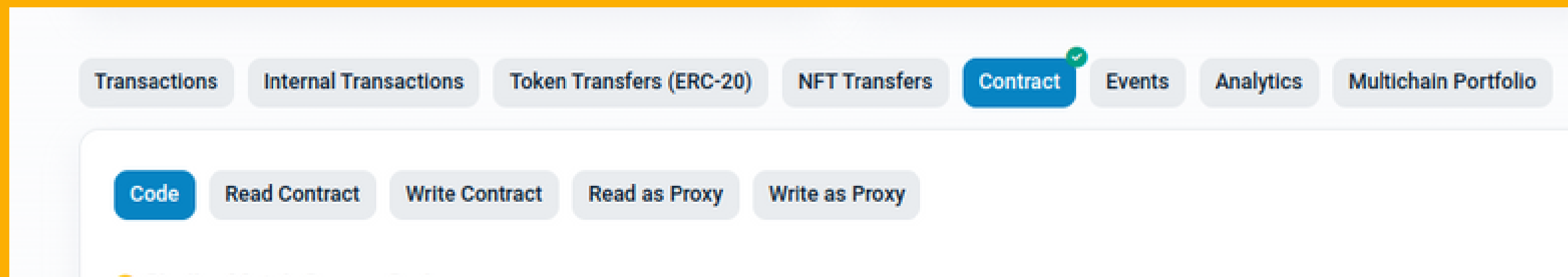
**Interact with  
unverified contracts  
via REMIX IDE**

ETHSofia  
Hackathon

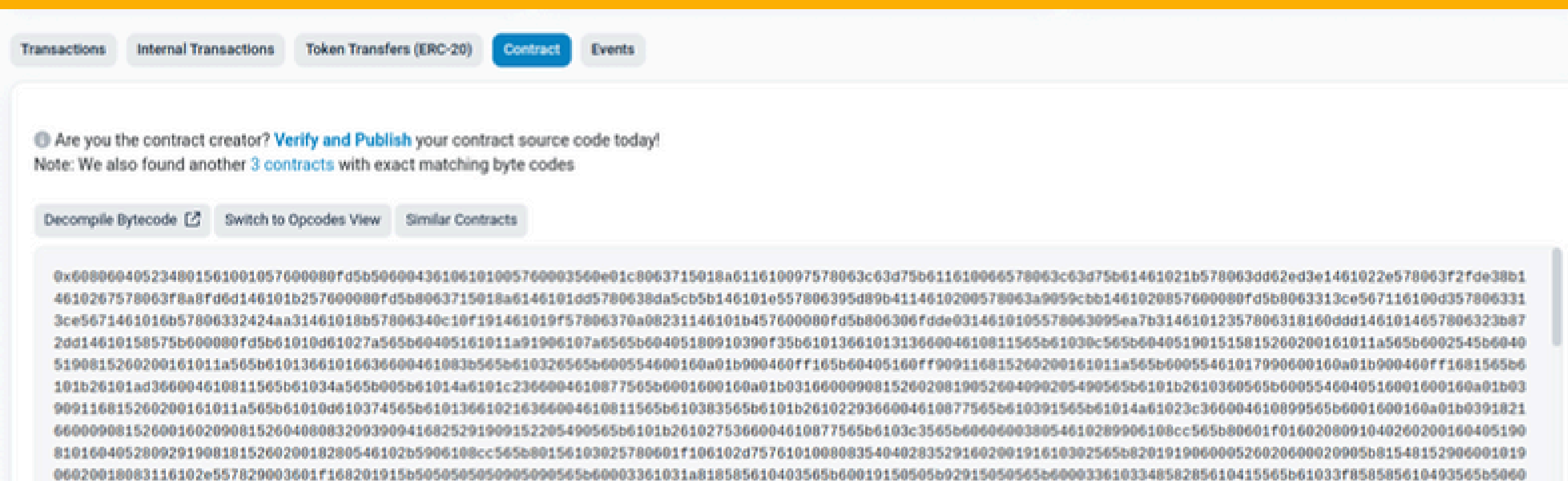
Doris Benda  
Tsvetan Dimitrov

# 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>

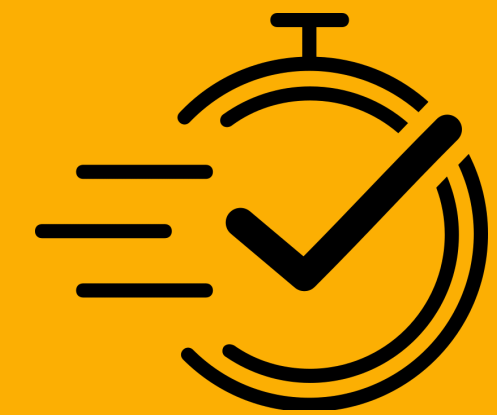
- Integrate `abi-guesser` library into Remix to decode `return Paramter` types from ABI-encoded blob data.

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

# What did we do during the Hackathon?

- Cloned the REMIX IDE.
- Expanded it with 2 libraries.
- UI work to get the new functionality exposed via the front end.

# Who benefits from this new feature in REMIX IDE?



- Security Researchers:
  - Easier investigation of smart contracts deployed by BlackHat hackers.
  - Faster response time to smart contract hacks.
- `Open-source` Degens:
  - Strengthen the `Open-source` mindset.
  - Attempts by companies to `Close-source` their smart contracts for a competitive advantage can be easier bypassed.
- Smart Contract Devs:
  - If they have to maintain unverified protocols.





# Team



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Tsvetan Dimitrov  
<https://github.com/powerslider>

# What is next?

- Create issue/PR on BlockScout repo.
- Talk/Find `EtherScan` people (Malaysian team) at DevCon next month:
  - Experimental integration into the block explorer.
- REMIX IDE:
  - Try to get a response from the team.







**Thanks!**

**Give us Feedback on  
ContractCompanion**