Forta Knight
Making the Blockchain a Safer Place

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What is The Blockchain?

Decentralized
Funds and protocols are not controlled by a centralized entity

Powerful
Anyone can design blockchain protocols and even create new tokens

High Risk for Abuse
Limited regulations and safety practices to ensure the safety of users
Rug Pulls

Scammers create seemingly lucrative tokens to get users to invest

These tokens contain malicious functions to steal tokens from users or manipulate the token's price

This allows them to make money at the expense of other users
Why Should We Care?

From Sept-Dec 2022:

- $11 Billion
  Value of ETH withdrawn and deposited by scammers from centralized exchanges

- >200,000
  Number of scam tokens deployed

- 99%
  Scam tokens that are not detected using traditional approaches

Current Approaches

Internet Postings
Users research the legitimacy of a token online, but the scams aren’t known until it’s too late.

Transaction Analysis
Rug pulls are usually identified by looking at price/transaction history, but these only reveal the scams once users have lost money.
How We Can Help

**Forta**
Allows us to write a bot that monitors Blockchain transactions and alerts on suspicious activity

**Forta Knight**
Our bot looks for token deployments on the Ethereum and Polygon networks

**Static Analysis**
We analyze the source code of new tokens to look for malicious code

**Alerts**
We send out alerts to inform users about potentially malicious tokens

**ZenGo Wallet Integration**
Forta’s integration with ZenGo wallet allows users to get warnings when interacting with suspicious contracts
Why Are We Better?

**Speed**

Static Analysis allows us to detect potential scams before they actually happen.

**Ease of Use**

Forta has integrations with the ZenGo wallet which can inform users about alerts when they interact with a scam contract.
<table>
<thead>
<tr>
<th>Strategy</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>01</strong> Hidden Mint</td>
<td>Hidden mints can be used to create additional tokens for the scammer.</td>
</tr>
<tr>
<td>Detection</td>
<td></td>
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<tr>
<td><strong>02</strong> Burn Function</td>
<td>Hidden burn functions can be used to remove tokens from the circulation.</td>
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<tr>
<td>Detection</td>
<td></td>
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<tr>
<td><strong>03</strong> Self Destruct</td>
<td>Self destruct functions can be used to steal all the money in a contract.</td>
</tr>
<tr>
<td>Detection</td>
<td></td>
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</tbody>
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Demo Time!
Ideas For Further Development

- Improve static analysis detectors to include control flow and value flow analysis
- Use detector results as input to a machine learning model to improve precision of alerts
- Create more detectors to detect other rug pull strategies
### Accomplishments

<table>
<thead>
<tr>
<th>Detector</th>
<th>Recall</th>
<th>False Positive Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mint Function Detector</td>
<td>35/38</td>
<td>3/21</td>
</tr>
<tr>
<td>Burn Function Detector</td>
<td>29/32</td>
<td>0/12</td>
</tr>
<tr>
<td>Self Destruct Detector</td>
<td>3/3</td>
<td>0/46</td>
</tr>
</tbody>
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Don’t Get Scammed, use Forta Knight!
THANKS!

Any questions?

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