FortaKnight Demo

Company: Forta

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Background

Web 3.0 and decentralized finance (DeFi) use decentralized blockchain technology

It is new technology, lots of vulnerabilities, emerging field

$10.5 billion dollars of theft in 2021 through decentralized blockchain finance

Vulnerabilities are exploited via attacker smart contracts

Attempts to create countermeasures are in production, including our project

How we can help

Transaction history of attacks are publicly available.

Provides data to work with to develop detection strategies.

Monitor supported blockchain networks.

Forta provides a service that allows anyone to write a bot that looks for suspicious activity.

We have written a bot catered towards people who are developing smart contracts, but anyone can use it to get information about what is happening on the blockchain.

How it works

Forta has a decentralized network of scan nodes that look at blockchain transactions.

Our bot is uploaded to the Forta network and the network runs it

We analyze content of transactions for suspicious activity

Demo Time!

Challenges

This project had a large learning curve for getting up to speed on Web 3 technologies and understanding how attacks work

There are limited resources available online on how to write a Forta bot, but we were able to resolve our issues by talking to our mentors

We ran into issues getting the necessary currencies on the right networks in order to upload our bot

Next Steps

Training a machine learning model to detect suspicious contract

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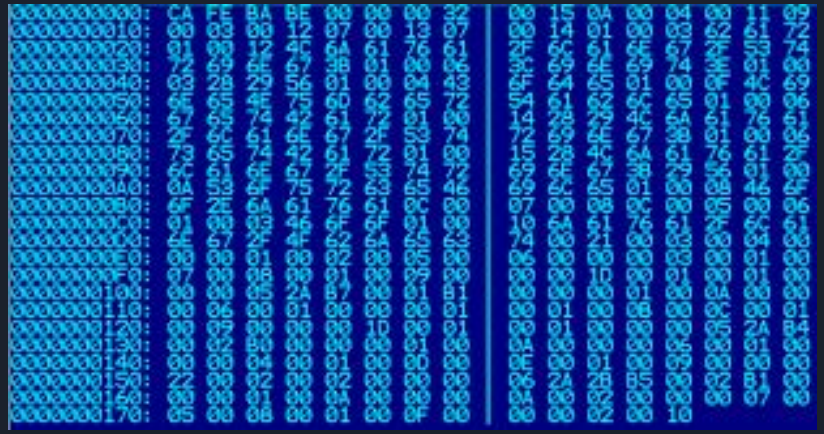
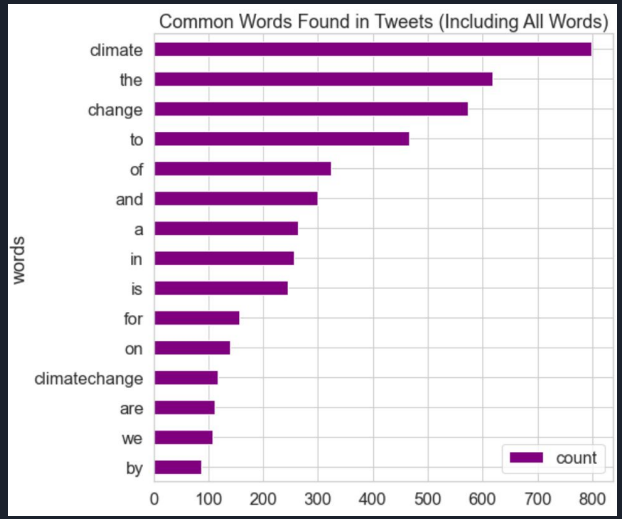
- Bytecode Analysis



Next Steps

Training a machine learning model to detect suspicious contract

- Bytecode Analysis
- Term Frequency



Next Steps

Search for good heuristics to detect suspicious transactions

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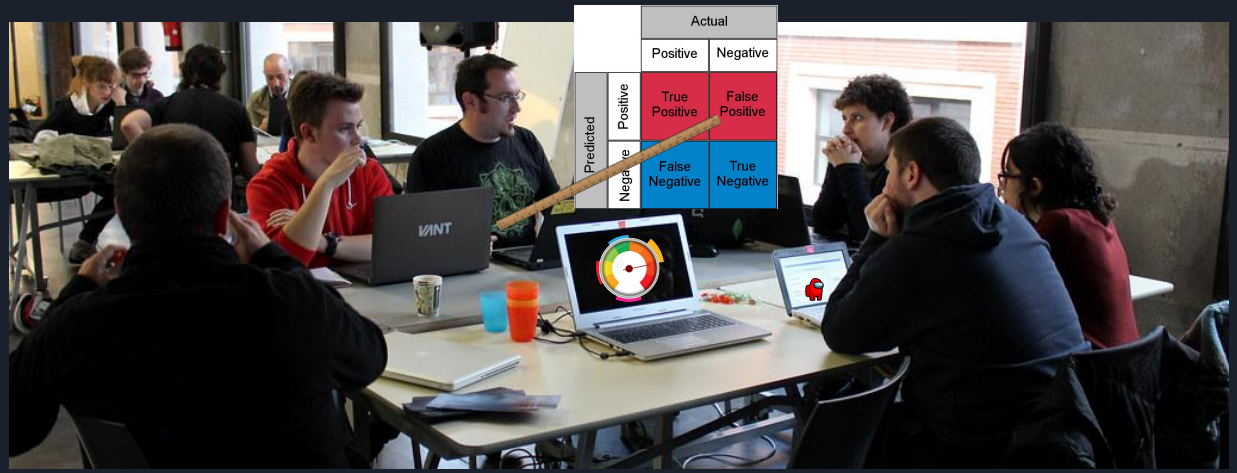
- Blacklisting addresses

Next Steps

- Optimization of bot

Next Steps

- Optimization of bot
  - Focus on bot runtime
  - Lower false positive rate



Questions?