

A study on EOS blockchain smart contracts

CS 558: Advanced Computer Security

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GOAL #1: Studying in detail the EOS.IO platform

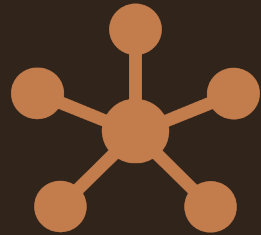


E O S

Introduction

- EOS.IO is the Blockchain platform where EOS cryptocurrency tokens can be exchanged and created.
- Blockchain network structure and functioning similar to the better-established one of Ethereum.
- Very fast, flexible and scalable.
- Based on Proof-of-Stake (PoS) consensus protocol.

EOS Blockchain platform layers



CORE LAYER: Basic building blocks for the system layer.

Consensus protocol.
Transactions protocol.
Network Peer protocol.
Accounts and permissions.



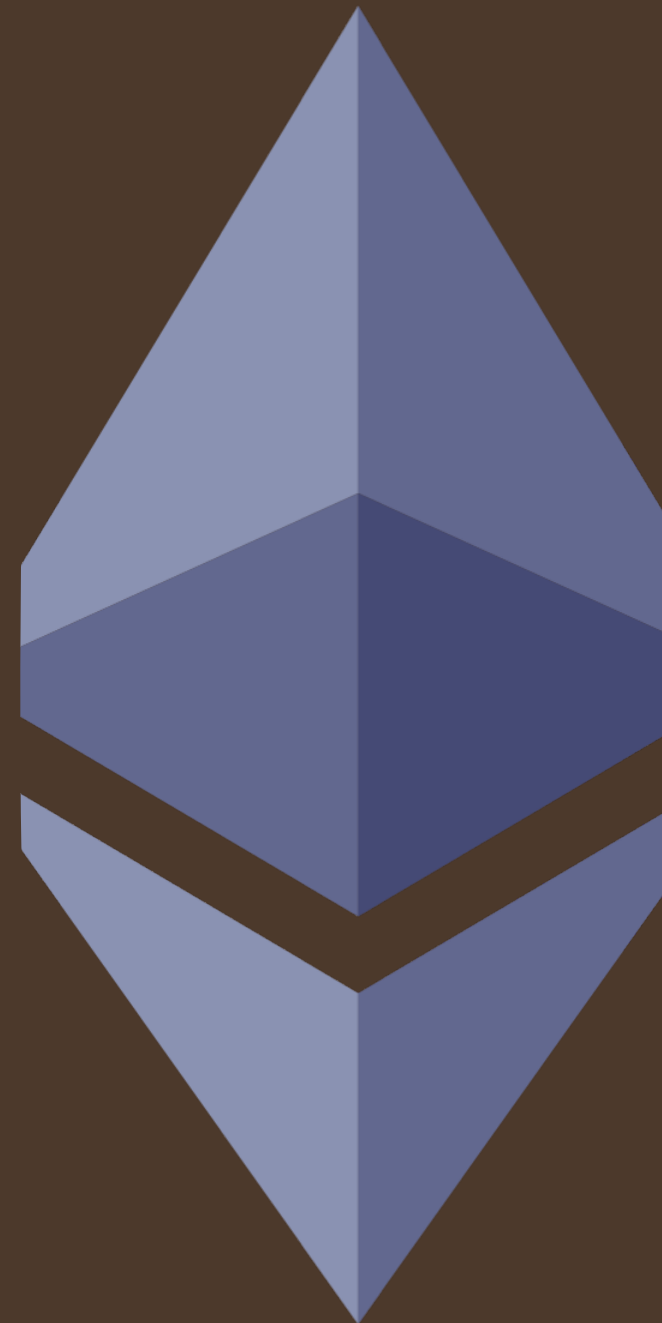
SYSTEM LAYER:

Where the Smart Contracts (programs running on top of blockchain) are.
Different types regarding their functionality.



GOAL #2: Studying Ethereum for a posterior comparison: “EOS vs. Ethereum”

- Performance
- Scalability
- Consensus achievement
- Current and future development



GOAL #3: Conducting research using research papers on Google Scholar

1

Understanding the message the paper is trying to deliver

2

Compiling a list of known vulnerabilities

3

Documenting types of exploits for each vulnerability. Look for open-source tools (if any) for security measurement operation

4

Answering "Why EOS is vulnerable to these attacks?"