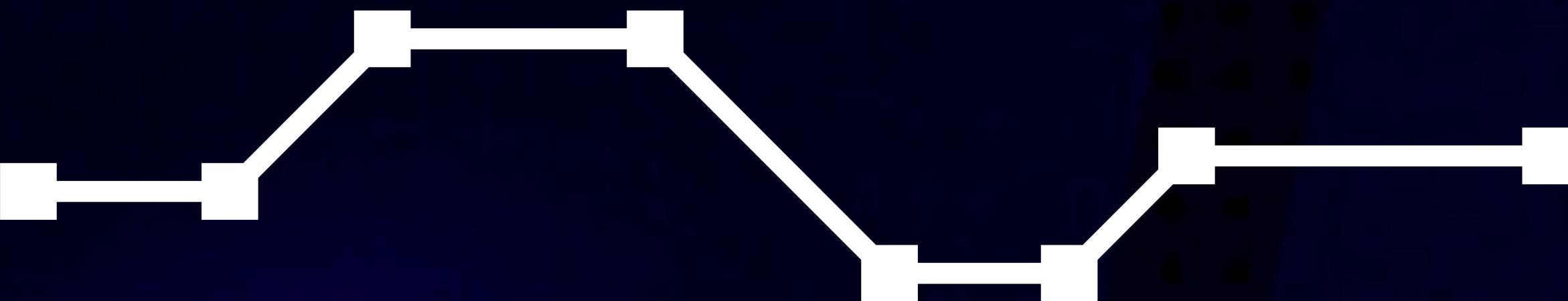


# HOW TO LEARN WEB3?



FRANCESCO CIULLA

# Bok, I am Francesco



**Developer Advocate  
at daily.dev**  
**Docker Captain**

Francesco Ciulla



[francescociulla.com](http://francescociulla.com)

The screenshot shows the YouTube channel page for 'francescociulla'. The channel has 10.2K subscribers. The main video thumbnail is titled 'Solidity Hello World in 109 seconds' and has 25,264 views. Below the video, there is a description: 'Hi, I am Francesco, and in this short video, I will show you a short step-by-step guide to write your first "Hello World" in Solidity.' There are also links to the article version: <https://dev.to/francescoxx/solidity-h...> and a 'READ MORE' link. The channel has sections for DEVOPS, WEB3, and PODCASTS, each with a large icon. The DEVOPS section features a Docker logo, the WEB3 section features an Ethereum logo, and the PODCASTS section features a microphone icon. The channel also includes links to JOIN, CUSTOMIZE CHANNEL, and MANAGE VIDEOS.

**DEVOPS**

**WEB3**

**PODCASTS**

Francesco Ciulla  
10.2K subscribers

HOME VIDEOS PLAYLISTS COMMUNITY MEMBERSHIP CHANNELS ABOUT CHANNELYTICS >

Solidity Hello World in 109 seconds

25,264 views • 4 months ago

Find Francesco <http://francescociulla.com>

Hi, I am Francesco, and in this short video, I will show you a short step-by-step guide to write your first "Hello World" in Solidity.

Article Version:  
<https://dev.to/francescoxx/solidity-h...>

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Popular uploads ▶ PLAY ALL

Video Title	Length	Views	Published
Solidity Hello World in 109 seconds	1:48	25,264	4 months ago
SOLIDITY HELLO WORLD IN 109 SECONDS	1:49	25K	4 months ago
STATE VARIABLES	1:39	15K	4 months ago
Docker Tutorial	9:00	14K	4 months ago
DOCKERIZE A PYTHON APP	9:00	14K	4 months ago
Patrick Loeber	1:49	14K	4 months ago
dockercon 2022	26:42	9.7K	3 months ago
TALKING WITH MAXIMILIAN SCHWARZMÜLLER	39:21	8.9K	3 months ago
TEACHING IS A PASSION	1:59:41	8.6K	Streamed 1 year ago
BUILD A REST API using Node.js, Express, Sequelize,...	1:59:41	8.6K	Streamed 1 year ago

Solidity Hello World in 109 seconds

State Variables - Solidity

Dockerize a Python Application

Docker Con 2022 - Learning in public VS learning in...

Teaching is a Passion | Maximilian Schwarzmüller

Build a Rest API using Node.js, Express, Sequelize,...



A collage of three women's faces, each looking slightly upwards and to the right. Overlaid on the image are several mathematical formulas and diagrams. In the top left corner, there is a formula for the volume of a cylinder:  $V = \frac{1}{3} \pi r^2 \cdot h$ . In the center, there is a diagram of a right-angled triangle with legs labeled 'r' and 'h', and a hypotenuse labeled 'A'. Below it is a trigonometric table with values for sin, cos, and tan at 0°, 30°, 45°, 60°, and 90°. In the bottom left corner, there is a quadratic equation  $y = ax^2 + bx + c$  and its solution for  $x$ :  $(x_1, x_2) = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$ . The bottom right corner features a 45-45-90 degree special right triangle.

# Where to start ?

$$y = ax^2 + bx + c$$

$$(x_1, x_2) = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

$$1 = \sqrt{P^2 - Q^2}$$

# Intro article

freeCodeCamp(🔥)

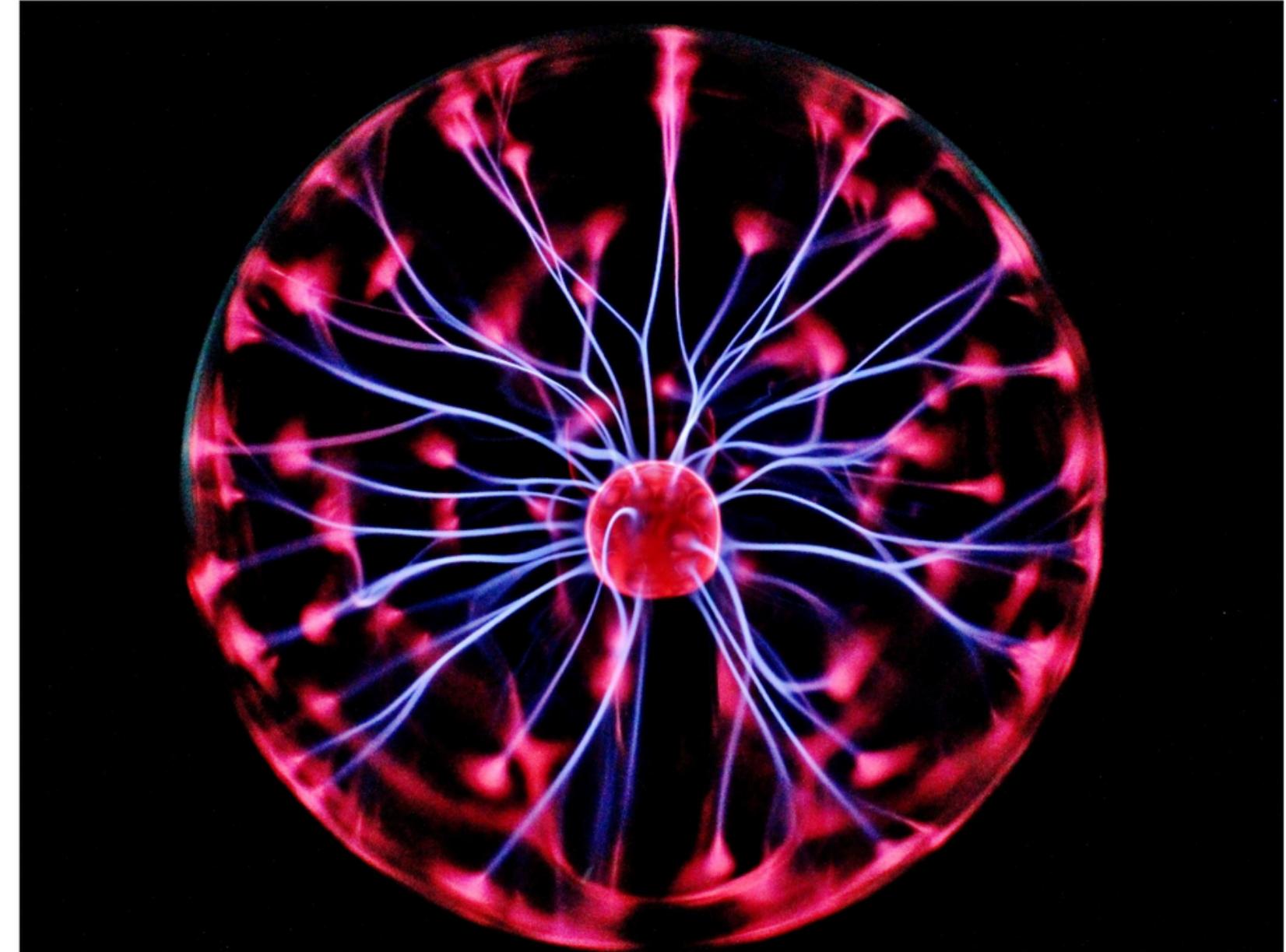


Francesco Ciulla, Nader Dabit, Raza Rython

## What is Web3? The Decentralized Internet of the Future Explained



Nader Dabit



# Roadmap?





# Blockchain fundamentals

- Web1, Web2, Web3
- What is a Blockchain
- Distributed Ledger
- Crypto basics
- Smart Contracts
- Wallets
- Block Explorers
- Blockchain Oracles
- NFT Intro
- DAO Intro
- Dapp Intro

Fundamentals are fundamental!

# Choose a Blockchain...



Ethereum



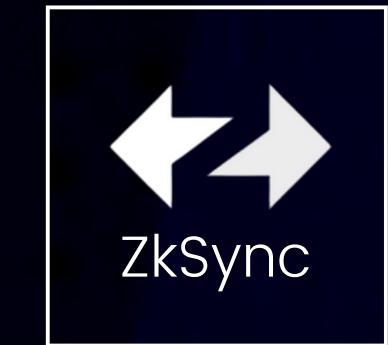
Solana



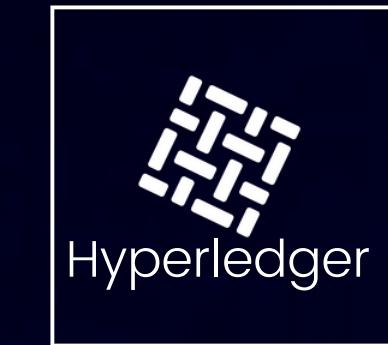
Polkadot



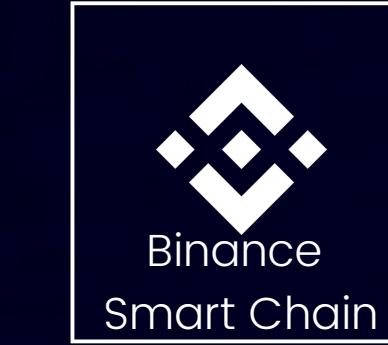
Polygon



ZkSync



Hyperledger



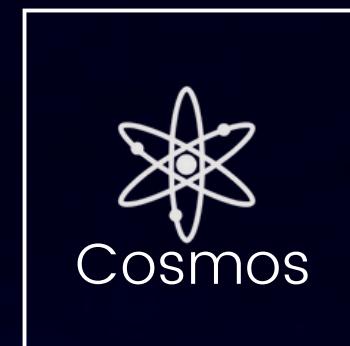
Binance  
Smart Chain



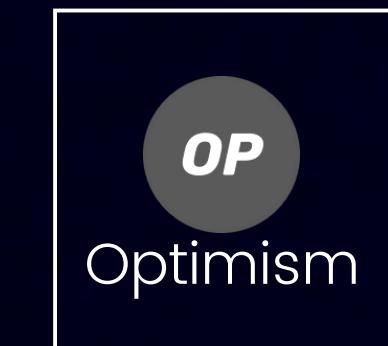
Avalanche



Hedera



Cosmos



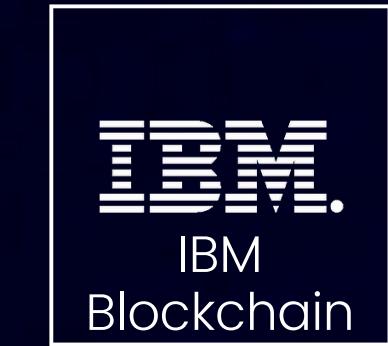
Optimism



Arbitrum



Algorand



IBM  
Blockchain



Stellar



Tron



Multichain



Cardano



Fantom



Oracle  
Blockchain



Klaytn



XinFin



Tezos



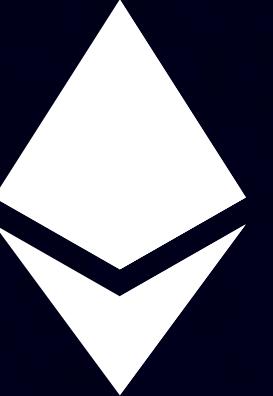
Near

# Ethereum



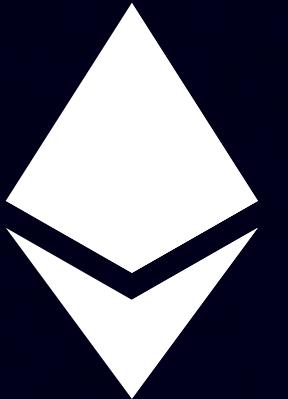
- Solid ecosystem
- Bigger community
- More unbiased resources to learn

# Ethereum Concepts (basic)



- Accounts
- Transactions
- Blocks
- EVM
- Gas
- Nodes & Clients
- Networks, Node Providers
- Consensus algorithms
- Beacon Chain
- Side Chains
- The Merge

# Ethereum Concepts (Advanced)



- Ethereum Whitepaper
- Ethereum Trilemma
  - decentralization
  - security
  - scalability
- EndGame (Vitalik)
- Yellowpaper

These are optional!

# Choose a language

Vyper



Solidity



Rust  
(Solana)



# Solidity

- object-oriented, high-level language for implementing smart contracts.
- It's a curly-bracket language designed to target the Ethereum Virtual Machine (EVM). It's influenced by C++, Python, and JavaScript.
- Its statically typed, supports inheritance, libraries, and complex user-defined types, and more.

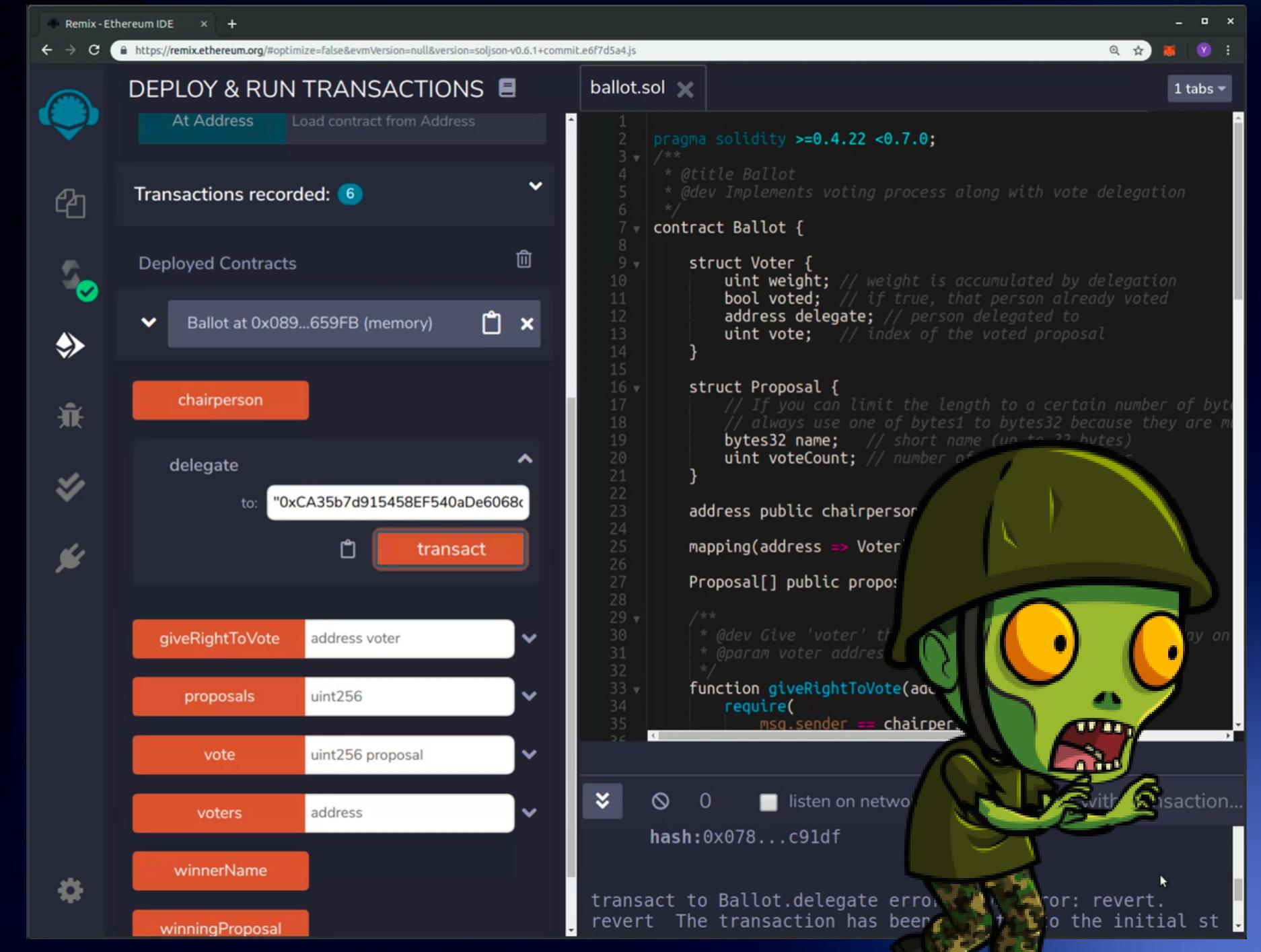
```
// SPDX-License-Identifier: GPL-3.0
pragma solidity >=0.7.1 <0.9.0;

contract SimpleAuction {
    function bid() public payable { // Function
        // ...
    }
}

// Helper function defined outside of a contract
function helper(uint x) pure returns (uint) {
    return x * 2;
}
```

# Solidity resources

- Remix IDE
- Solidity Docs
- Solidity Cheatsheet
- Cryptozombies
- LearnWeb3 Tutorials





**Blockchain  
Solidity  
Smart Contracts**  
*Beginner to Expert*



**Solidity  
Blockchain  
Smart Contracts**  
*Beginner to Expert*



# Solidity Videos



**Dapp University**  
532K subscribers



**Smart Contract Programmer**  
33.8K subscribers

# Solidity tools & frameworks

- Metamask
- Truffle
- Hardhat
- Brownie
- Foundry



# Connect Dapp to Frontend

(Use any frontend framework!)



Web3.js



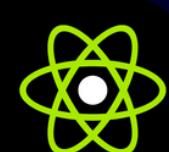
Ether.js



Web3 API



REACT  
MORALIS



# Decentralized Storage

p2p network of user-operators who hold a portion of the overall data

**IPFS**



**Arweave**



**FileCoin**



# Mid-level tools

- Testing Tools
  - Waffle
  - Ganache
- OpenZeppelin
- WalletConnect
- Chainlink
- The Graph



# SDKs



Alchemy

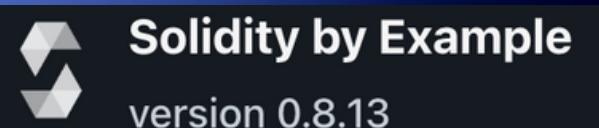


thirdweb



Moralis

# Build Projects



## Solidity by Example

v 0.8.13

an introduction to Solidity with simple examples

▶ Most code are explained here

2022/09/15 - GitHub PR by yanukadeneth99  
2022/09/15 - Uniswap V3 flash swap  
2022/09/12 - Uniswap V3 flash loan

Hello World

First App

Primitive Data Types

Variables

Constants

Immutable

Reading and Writing to a State Variable

Ether and Wei

Gas and Gas Price

**<https://solidity-by-example.org/>**

# Build in public

# Join a Community!

Developer Dao



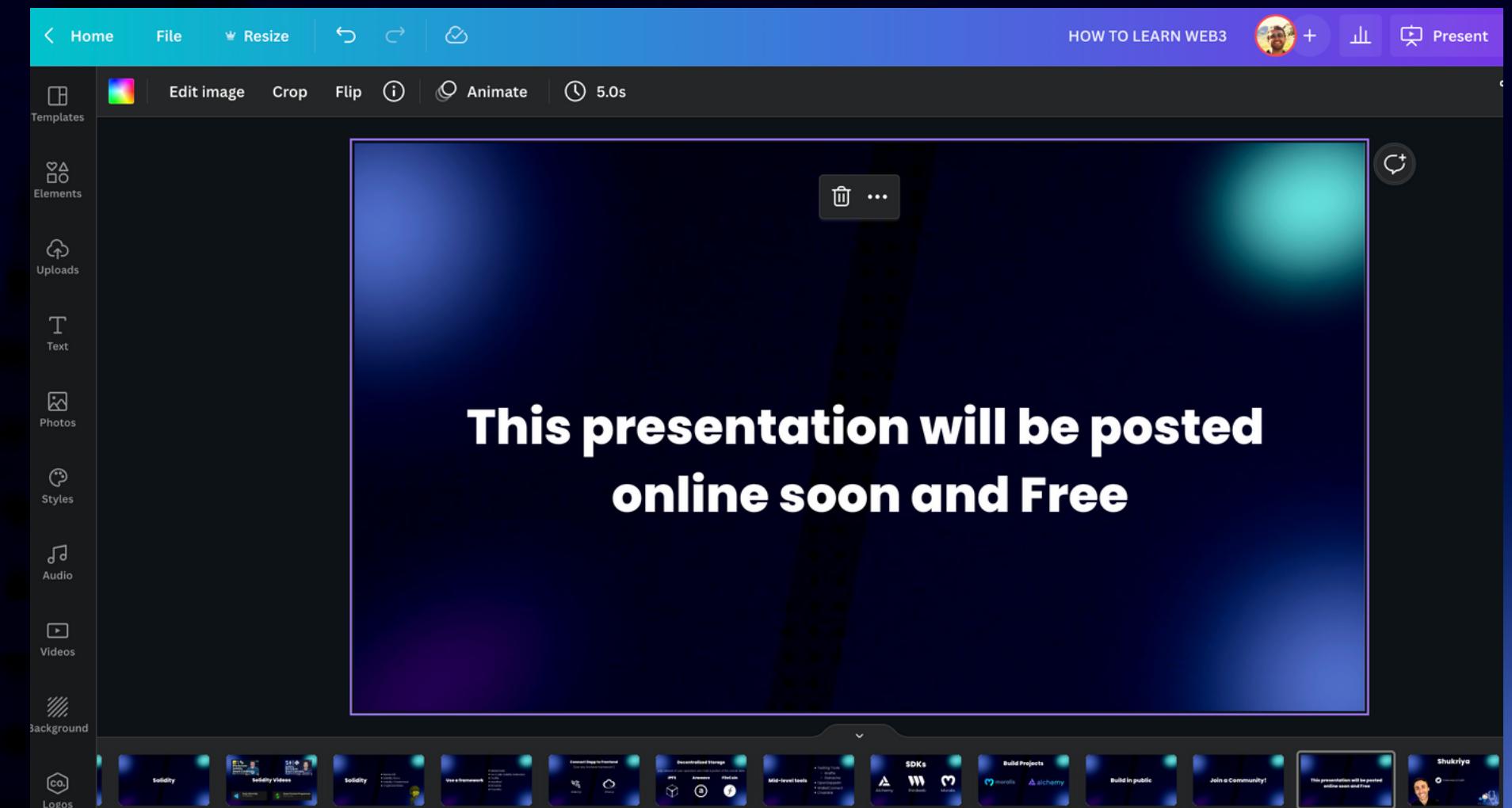
LearnWeb3 DAO



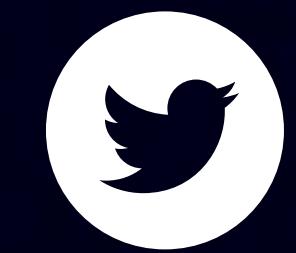
4C



# This presentation will be posted online soon and Free



# Hvala vam



FrancescoCiulli4

