How to become a Web3 Developer

(End Goal - Get a Job or start a Web3 Startup)

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Questions

Roadmap

Don't forget to make noise while learning (share your progress and the projects you build on discord communities and twitter). Keep a habit of learning by reading because many web3 projects are still early and don't have proper docs. Which is also a good thing because you can help them instead.

- Skills from Web2 that will help.
 - Typescript, NextJS, Chakra UI, Material UI, Testing.
 - Core computer concepts (operating systems, networking) and problem solving skills are fundamental and required no matter web2 or web3.
- Differentiating Skills
 - Knowledge of Cryptography (ECDSA Elliptic curve cryptography, Asymmetric key cryptography).
 - Remote Procedure calls is the base of blockchain (very helpful if you already know it), WebSockets.
- Metamask (wallet) (use web3 to learn how it works)
 - this is a wallet used to interact with blockchain.
 - this is a very basic skill expected from a crypto user, however developer should know more than average user like how to programmatically request network change and detect current accounts and network.
 - have a look at its docs.

- Solidity (new language) (EVM based) (For solana & near) (learn Rust)
 - Learn basics first the language is under very quick development new versions roll out pretty quick so don't get overwhelmed.
 - Best place to start CryptoZombies.
 - Reading habit is recommended as most of the good tutorials are in text not in video format.
 - Other Resources:
 - Beginner Level
 - Eattheblocks Youtube
 - Smart Contract Programmer Youtube
 - DApp University Youtube
 - Solidity by Example (text based tutorial)
 - Intermediate Level
 - Solidity Docs
 - Read other people's code.
 - Expert Level
 - Ethereum Docs
 - <u>Secureum</u>
 - Mastering Ethereum Gavin Wood
- <u>Etherscan</u> (Blockchain Explorer)
 - This is the blockchain explorer. You might think this is basic but there is a lot to learn here. A lot of people don't know how to read the transactions.
 - Learn all the terms mentioned in a transaction google them.
 - Learn by reading code of other popular smart contracts most of them are Open Source.
 - Learn how to verify a contract from explorer, learn how to verify using remix and then programmatically from hardhat.
- Remix (online IDE for solidity) (beginner level)
 - Learn how to deploy contracts.
- <u>Hardhat</u> (framework for development) (intermediate user) (widely used) (highly recommended) (Javascript)
- Openzeppelin Contracts (EVM based only)
- Anchor Protocol (Solana)
- Brownie (intermediate user) (development Framework) (python)
- Start building!
- Project based learning Videos
 - https://www.youtube.com/watch?v=GKJBEEXUha0
 - https://www.youtube.com/watch?v=M576WGiDBdQ
 - Moralis Youtube Channel

Decide DeFi, NFT or DAOs (multiple is fine)

- DeFi Uniswap (decentralized Dex), Aave, Compound. Openzeppelin
- NFT Openzeppelin (ERC721, ERC20, ERC1155)
- DAOs Compound Governance, Snapshot
- Metaverse Decentraland, Sandbox.

Good to learn

- Chainlink Oracles 👉
- Chainlink External Adapters
- IPFS 🛨
- Ceramic
- Moralis

Participate in Hackathons

- Devpost
- Gitcoin
- Hackerlink
- ETHGlobal
- Announcements on Medium.com

Contribute to Open Source

- Gitcoin Bounties
- Follow projects on Github many require help for documentation.

Ethereum Security (optional) (very high demand very low supply)

- Ethernaut
- Damn Vulnerable Defi
- Capture the Ether
- Trail of Bits blogs
- Paradigm Blogs

Communities to join (highly recommended)

Get discord if you don't have web3 people use discord.

- Figment.io
- Buildspace
- Questbook (India Specific)
- SuperTeamDAO
- Developer DAO (not free technically)

Get a Job

- Cryptocurrency Jobs
- AngelList
- LinkedIn
- EthGlobal Discord
- Buildspace Discord
- Chainlink Discord
- Developer DAO Discord

Freelance Gigs on Gitcoin Bounties and various other discord groups.

If you go the extra mile and learn Blockchain Security you will get paid very well!

Start a Web3 Startup

Participate in hackathons. Win the hackathons. The VCs are usually judges interact with them during the hackathon build something they are expecting someone to build. There are team formation session and brainstorming sessions.

- Tachyon Accelerator
- Celo Camp 5 (Forms open)
- TechStars
- Outlier Ventures
- DeFi Alliance
- Web3 Foundation
- Kernel Foundation (Gitcoin)
- Encode Club

Hot Topics

- MEV
- DAOs
- Metaverse
- Zero-Knowledge Proofs