



<https://www.studytheblockchain.com>

StudyTheBlockchain is a part time 1.5 month bootcamp.

This program provides:

- An **online classroom** with live video, screen share and chat
- **Live instruction** from blockchain engineers.
- A carefully **constructed curriculum**
- Tons of **group work**
- **One on ones** with your instructor
- **Feedback** on your DApp from blockchain engineers
- **Presentation event(s) where you can showcase** your DApp to blockchain companies
- Guest speakers from the industry
- **Professional Blockchain Developer Certificate** upon completion
- Post graduation, **keep in touch and network** with alum in a Slack chat
- Repeat the live course as many times as you'd like, **for free**
- Access to all content and new content, **forever**

Syllabus

Throughout each class we will

- Discuss when to make an app decentralized and when not to
- Constantly build decentralized applications
- Go over code in small groups
- Debug coding problems
- Create user interface for blockchain applications
- Go over deployment
- Go over Smart Contract best practices, testing, optimizing code to reduce gas expenditure
- Go over security best practices

Your class spans 1.5 months of work and a lifetime of opportunity and connections.

Classes are 3 hours long each and are always recorded. Students constantly keep in contact and communicate using Slack.

We also allocate time for the instructor to schedule private time with you

Date	Time	Num	Topic/Activity
Monday Feb 25, 2019	5:30pm Pacific	1	Environment setup check; Intro to Ethereum, Remix, Ganache, Metamask, setup a smart contract in Remix
Wednesday Feb 27, 2019	5:30pm Pacific	2	Connecting to smart contract via web3, intro to DApp creation, intro to solidity
Friday March 1, 2019	5:30pm Pacific	3	Intro to Truffle , intro to uints, addresses, structs and mappings
Monday March 4, 2019	5:30pm Pacific	4	Using a mapping, memory vs storage, global variables, emitting events, arrays
Wednesday March 6, 2019	5:30pm Pacific	5	Donation DApp, Taking payments , extending contracts, establishing an owner in a contract, constructor functions, accessing a contract and information about the contract within the contract, transferring a balance in a contract, wei

Friday March 8, 2019	5:30pm Pacific	6	Function modifiers, OpenZeppelin, inheritance
Monday March 11, 2019	5:30pm Pacific	7	Erc20 contract walk through, web wallet walk through, final project idea sharing
Wednesday March 13, 2019	5:30pm Pacific	8	Function visibility modifiers, view, pure, storage vs memory, random numbers, binary code
Friday March 15, 2019	5:30pm Pacific	9	Homework one due, Medical Records DApp walk-through, intro to hex code, creating an Ethereum address from scratch , coding out a part of a voting DApp
Monday March 18, 2019	5:30pm Pacific	10	Bike License DApp walk-through, writing your own function modifiers, for loops, calling constructor functions from multiple contracts, SafeMath library, using interfaces to speak to live contracts
Wednesday March 20, 2019	5:30pm Pacific	11	How to set up an ICO, how to deploy a contract that depends on another contract
Friday March 22, 2019	5:30pm Pacific	12	ICO Crowdsale DApp creation continued
Monday March 25, 2019	5:30pm Pacific	13	IPFS (decentralized cloud storage), integrating IPFS into your DApp
Wednesday March 27, 2019	5:30pm Pacific	14	ERC721 walkthrough and Real Estate DApp that utilizes ERC721
Friday March 29, 2019	5:30pm Pacific	15	Self destruct, libraries, require vs assert vs revert, dealing with time, function overloading
Monday April 1, 2019	5:30pm Pacific	16	Authentication via uport, upgradable architecture, oracles
Wednesday April 3, 2019	5:30pm Pacific	17	Work on your final project and get help from your instructor
Friday April 5, 2019	5:30pm Pacific	18	Work on your final project and get help from your instructor
Friday May 3, 2019	5:30pm Pacific	19	Mock Presentations (practice for your final presentation)
Monday May 6, 2019	5:30pm Pacific	20	Mock Presentations (practice for your final presentation)
Wednesday May 8, 2019	5:30pm Pacific	21	Final Presentations (online) - you will present to blockchain companies and the blockchain community

Technologies Used

This is a list of the technologies that we will use

Metamask

<https://metamask.io/>

MetaMask is a bridge that allows you to visit the distributed web of tomorrow in your browser today. It allows you to run Ethereum dApps right in your browser without running a full Ethereum node. MetaMask includes a secure identity vault, providing a user interface to manage your identities on different sites and sign blockchain transactions.

Remix

<https://remix.ethereum.org>

Remix is an IDE for the smart contract programming language Solidity and has an integrated debugger and testing environment.

Web3

<https://github.com/ethereum/web3.js/>

Ethereum JavaScript API

Truffle

<http://truffleframework.com/>

Truffle is the most popular development framework for Ethereum with a mission to make your life a whole lot easier. It has Built-in smart contract compilation, linking, deployment and binary management, automated contract testing for rapid development, scriptable deployment & migrations framework, network management for deploying to both public & private networks, access to hundreds of external packages, interactive console for direct contract communication, external script runner that executes scripts within a truffle environment, built for speed.

Ganache

<http://truffleframework.com/ganache/>

<https://github.com/trufflesuite/ganache-cli>

Quickly fire up a personal Ethereum blockchain which you can use to run tests, execute commands, and inspect state while controlling how the chain operates. It's basically tool we'll use to create a private blockchain that runs on our machine only.

OpenZeppelin

<https://openzeppelin.org/>

OpenZeppelin is an open framework of reusable and secure smart contracts in the Solidity language.

IPFS

<https://ipfs.io/>

Questions? Contact peter@studytheblockchain.com

Apply for our October 2018 class at <https://www.studytheblockchain.com>

A peer-to-peer hypermedia protocol to make the web faster, safer, and more open. It's basically aiming to replace HTTP and build a better web for all of us.

Uport

<https://www.uport.me/>

A self-sovereign identity and user-centric data platform: the keys to the digital world you've always wanted. It's basically decentralized authentication.