title: Ethereum for JavaScript developers description: Learn how to develop for Ethereum using JavaScript-based projects and tooling. lang: en

JavaScript is among the most popular languages in the Ethereum ecosystem. In fact, there's a team dedicated to bringing as much of Ethereum to JavaScript as possible.

There are opportunities to write JavaScript (or something close) at all levels of the stack.

Interact with Ethereum {#interact-with-ethereum}

JavaScript API libraries {#javascript-api-libraries}

If you'd like to write JavaScript to query the blockchain, send transactions and more, the most convenient way to do this is using a JavaScript API library. These APIs allow developers to easily interact with the nodes in the Ethereum network.

You can use these libraries to interact with smart contracts on Ethereum so it's possible to build a dapp where you just use JavaScript to interact with pre-existing contracts.

Check out

- Web3.js
- Ethers.js – *includes Ethereum wallet implementation and utilities in JavaScript and TypeScript.*
- viem – a TypeScript Interface for Ethereum that provides low-level stateless primitives for interacting with Ethereum.

Smart contracts {#smart-contracts}

If you're a JavaScript developer and want to write your own smart contract, you may want to get familiar with Solidity. This is the most popular smart contract language and it's syntactically similar to JavaScript, which may make it easier to learn.

More on smart contracts.

Understand the protocol {#understand-the-protocol}

The Ethereum virtual machine {#the-ethereum-virtual-machine}

There is a JavaScript implementation of Ethereum's virtual machine. It supports the latest fork rules. Fork rules refer to changes made to the EVM as a result of planned upgrades.

It's split out into various JavaScript packages that you can check out to better understand:

- Accounts
- Blocks
- The blockchain itself
- Transactions
- And more...

This will help you understand things like "what's the data structure of an account?".

If you prefer to read code, this JavaScript could be a great alternative to reading through our docs.

Check out the monorepo
`ethereumjs`

Nodes and clients {#nodes-and-clients}

An Ethereumjs client is in active development that lets you dig into how Ethereum clients work in a language you understand; JavaScript!

It used to be housed in a standalone repository, however, was later merged into the EthereumVM monorepo as a package.

Check out the client
ethereumjs-client

Other projects {#other-projects}

There are also plenty of other things going on in the land of Ethereum JavaScript, including:

- libraries of wallet utilities.
- tools to generate, import, and export Ethereum keys.
- an implementation of the merkle-patricia-tree – a data structure outlined in the Ethereum yellow paper.

Dig into whatever interests you most over at the EthereumJS repo

Further reading {#further-reading}

Know of a community resource that helped you? Edit this page and add it!