Hands-On Blockchain for Python Developers: Gain Blockchain Programming Skills to Build Decentralized Applications Using Python

by

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Synopsis

Implement real-world decentralized applications using Python, Vyper, Populus, and EthereumKey FeaturesStay up-to-date with everything you need to know about the blockchain ecosystemImplement smart contracts, wallets, and decentralized applications(DApps) using Python librariesGet deeper insights into storing content in a distributed storage platformBook DescriptionBlockchain is seen as the main technological solution that works as a public ledger for all cryptocurrency transactions. This book serves as a practical guide to developing a full-fledged decentralized application with Python to interact with the various building blocks of blockchain applications.Hands-On Blockchain for Python Developers starts by demonstrating how blockchain technology and cryptocurrency hashing works. You will understand the fundamentals and benefits of smart contracts such as censorship resistance and transaction accuracy. As you steadily progress, you'll go on to build smart contracts using Vyper, which has a similar syntax to Python. This experience will further help you unravel the other benefits of smart contracts, including reliable storage and backup, and efficiency. You'll also use web3.py to interact with smart contracts and leverage the power of both the web3.py and Populus framework to build decentralized applications that offer security and seamless integration with cryptocurrencies. As you explore later chapters, you'll learn how to create your own token on top of Ethereum and build a cryptocurrency wallet graphical user interface (GUI) that can handle Ethereum and Ethereum Request for Comments (ERC-20) tokens using the PySide2 library. This will enable users to seamlessly store, send, and receive digital money. Toward the end, you'll implement InterPlanetary File System (IPFS) technology in your decentralized application to provide a peer-to-peer filesystem that can store and expose media.By the end of this book, you'll be well-versed in blockchain programming and be able to build end-to-end decentralized applications on a range of domains using Python.What you will learnUnderstand blockchain technology and what makes it an immutable databaseUse the features of web3.py API to interact with the smart contractCreate your own cryptocurrency and token in Ethereum using VyperUse IPFS features to store content on the decentralized storage platformImplement a Twitter-like decentralized application with a desktop frontendBuild decentralized applications in the shape of console, web, and desktop applicationsWho this book is forIf you are a Python developer who wants to enter the world of blockchain, Hands-On Blockchain for Python Developers is for you. The book will be your go-to guide to becoming well-versed with the blockchain ecosystem and building your own decentralized applications using Python and library support.Table of ContentsIntroduction to Blockchain ProgrammingSmart Contract FundamentalsImplementing Smart Contract Using VyperInteracting With Smart Contract Using Web3Populus Development FrameworkBuilding a Practical Decentralized ApplicationFront-end Decentralized ApplicationCreating Token in EthereumCryptocurrency WalletInter Planetary: A Brave New File SystemUsing Py-ipfs-api to Connect to Decentralized File SystemImplementing Decentralized Application Using IPFS

What people say about this book

Ebook Tops Reader, “Perfect - Unassuming, but as described. This book is well written. Straight to point, without unnecessary detail. One thing I found fascinating is the hands-on approach. i give it to Arjuna. More power to you. I highly recommend. I am now at the 5th Chapter, and everything work as breeze.”

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