

## Blockchain: A Deep Dive Into Blockchain

***This book presents the best papers from the 1st International Conference on Mathematical Research for Blockchain Economy (MARBLE) 2019, held in Santorini, Greece. While most blockchain conferences and forums are dedicated to business applications, product development or Initial Coin Offering (ICO) launches, this conference focused on the mathematics behind blockchain to bridge the gap between practice and theory. Every year, thousands of blockchain projects are launched and circulated in the market, and there is a tremendous wealth of blockchain applications, from finance to healthcare, education, media, logistics and more. However, due to theoretical and technical barriers, most of these applications are impractical for use in a real-world business context. The papers in this book reveal the challenges and limitations, such as scalability, latency, privacy and security, and showcase solutions and developments to overcome them.***

***Blockchain is a distributed database that enables permanent, transparent, and secure storage of data. The blockchain technology is the backbone of cryptocurrency and it is gaining popularity with people who work in the finance, government, and arts sectors. This book is an up-to-date, one-stop guide to this leading technology and its ...***

***Mastering Blockchain, Third Edition is the blockchain bible to equip you with extensive knowledge of distributed ledgers, cryptocurrencies, smart contracts, consensus algorithms, cryptography and blockchain platforms such as Ethereum, Bitcoin, and many more.***

***This textbook focuses on distributed ledger technology (DLT) and its potential impact on society at large. It aims to offer a detailed and self-contained introduction to the founding principles behind DLT accessible to a well-educated but not necessarily mathematically oriented audience. DLT allows solving many complicated problems arising in economics, banking, and finance, industry, trade, and other fields. However, to reap the ultimate benefits, one has to overcome some of its inherent limitations and use it judiciously. Not surprisingly, amid increasing applications of DLT, misconceptions are formed over its use. The book thoroughly dispels these misconceptions via an impartial assessment of the arguments rooted in scientific reasoning. Blockchain and Distributed Ledgers: Mathematics, Technology, and Economics offers a detailed and self-contained introduction to DLT, blockchains, and cryptocurrencies and seeks to equip the reader with an ability to participate in the crypto economy meaningfully.***

***A Practical Guide for Designing, Implementing, Publishing, Testing, and Securing Distributed Blockchain-based Projects***

***A Developer's Guide to Build, Deploy, and Managed Apps Using Ethereum, Hyperledger Fabric, and AWS Blockchain (English Edition)***

***Mathematical Research for Blockchain Economy***

***A Beginner's Guide to Building Blockchain Solutions***

***A Practical Guide to Distributed Ledger Technology***

## ***Crypto Asset Investing in the Age of Autonomy***

Demystify architecting complex blockchain applications in enterprise environments Architecting Enterprise Blockchain Solutions helps engineers and IT administrators understand how to architect complex blockchain applications in enterprise environments. The book takes a deep dive into the intricacies of supporting and securing blockchain technology, creating and implementing decentralized applications, and incorporating blockchain into an existing enterprise IT infrastructure. Blockchain is a technology that is experiencing massive growth in many facets of business and the enterprise. Most books around blockchain primarily deal with how blockchains are related to cryptocurrency or focus on pure blockchain development. This book teaches what blockchain technology is and offers insights into its current and future uses in high performance networks and complex ecosystems. • Provides a practical, hands-on approach • Demonstrates the power and flexibility of enterprise blockchains such as Hyperledger and R3 Corda • Explores how blockchain can be used to solve complex IT support and infrastructure problems • Offers numerous hands-on examples and diagrams Get ready to learn how to harness the power and flexibility of enterprise blockchains!

Learning Bitcoin SV: The Original Bitcoin & Global Public Blockchain for Enterprise KEY FEATURES

- Get familiar with the working of the Bitcoin network, protocol, transactions, Smart contracts and the incentive models of Bitcoin. - Learn advanced concepts such as Metanet and Tokenized protocol. - Work with tools and utilities to build consumer and enterprise applications. - Get a full explanation of cryptography and its math in Bitcoin. DESCRIPTION

In 2008, Satoshi Nakamoto released a codebase and whitepaper for a network that came to be known as the Blockchain. It was the first successful attempt to create electronic money after decades of failed attempts across the world. However, the basis of its success is not just the digitalization of currency into electronic form, but its peer-to-peer node network and the public storage of all transactions in time-stamped blocks chained together called as Timechain in the whitepaper. It also introduces a non-trusted third party transaction processor, which replaces the current centralized trust-based systems. What happened next is history, and today, it is a multi-billion dollar industry across the world. Bitcoin Satoshi Vision Blockchain restored the original version of the Bitcoin protocol and it is now a thriving developer, business and enterprise ecosystem. This book offers a practical deep dive into every aspect of the Bitcoin protocol. It includes the math behind the

Cryptography and a detailed overview of the application-level protocol, which works on top of the Bitcoin Blockchain network. It also focuses on the core principles and fundamental concepts of Bitcoin to explain the constructs of a Blockchain type system. WHAT WILL YOU LEARN

- You will learn the internal workings of Bitcoin and get the ability to understand most blockchains that exist. - Create applications using bitcoin as a public registry and a data storage ledger. - Create and store data on Blockchain as DAG. - Discover and get familiar with the advanced Application layer protocols. - Get familiar with the law and regulations applicable to Bitcoin. WHO THIS BOOK IS FOR

This book is for anyone who is interested in exploring blockchain technology. It will appeal to Developers, Architects, Technology Managers and Executives who wish to build new or transform their existing applications to a blockchain based system to gain efficiencies in Cost, Scalability, Security and Robustness. TABLE OF CONTENTS

1. Bitcoin Protocol Overview : Origins and Concept 2. Economic model of Bitcoin and network structure for nodes 3. Cryptography and ECDSA Infrastructure 4. All about wallets 5. Transactions and Transaction Scripts 6. Miners and Nakamoto Consensus 7. Metanet Protocol : Data Structures on Blockchain 8. Bitcom and Other Application Protocols 9. Data Carrier Transactions :

BitDB and Querying bitcoin as database 10. Planaria and other utilities 11. Real world Applications 12. Identity and Authentication on BitCoin : Paymail 13. Tokens and the Tokenized protocol for building real world utilities 14. Going into future : AI/ML, Big Data, IOT 15. BitCoin and Law

Why is everyone talking about blockchain? What is it all about? Wouldn't it be great if there is something out there that can help you understand the latest trending technology - Blockchain in a relaxed manner with tons of graphics, which is even more fun than a barrel full of monkeys?! With this book

Unblockchain, you will learn how blockchains are architected, what the main technology components are such as cryptography, hashing, applications as well as the constraints and limitations of blockchain. In this

book we are going to cover in depth all the components of blockchains. We are going to understand how the hashing mechanisms work, what the cryptography role is, how transactions are signed and much more! We are also going to look at the blockchain use cases, understand the blockchain architecture and even deploy an Ethereum node and play around with the blockchain. I will help you to better understand when to use blockchain, the key concepts, the industry jargon and a lot of additional information that will help you interact with stakeholders in any blockchain project you may get involved in. No matter what your background is, you will be able to follow along with this book and do the hands-on! After this, you will for sure be able to get involved in any blockchain project and to show off your knowledge in front of your pals! Why does this book look so different? Based on cognitive science and learning theory researches, Unblockchain uses a visually rich format to engage with your mind, rather than using solely heavy boring text. You will also have a few hands-on that will help you understand the technology by trying it yourself! This multi-sensory book is designed to turn you into a blockchain expert!

An introduction to cryptocurrencies and blockchain technology; a guide for practitioners and students. Bitcoin and blockchain enable the ownership of virtual property without the need for a central authority. Additionally, Bitcoin and other cryptocurrencies make up an entirely new class of assets that have the potential for fundamental change in the current financial system. This book offers an introduction to cryptocurrencies and blockchain technology that begins from the perspective of monetary economics. The book first presents a nontechnical discussion of monetary theory, enabling readers to understand how cryptocurrencies are a radical departure from existing monetary instruments, and provides an overview of blockchain technology and the Bitcoin system. It then takes up technical aspects of Bitcoin in more detail, covering such topics as the Bitcoin network, its communications protocol, the mathematics underpinning decentralized validation, transaction types, the data structure of blocks, the proof-of-work consensus mechanism, and game theory. Finally, the book discusses specific issues and applications, including price volatility, regulatory uncertainty, and central bank cryptocurrencies, as well as such alternative applications as decentralized verification and attestation, tokens, and smart contracts. The concluding chapter offers practical advice on getting started with Bitcoin. End-of-chapter exercises allow readers to test their knowledge. Bitcoin, Blockchain, and Cryptoassets is suitable for classroom use and as a reference for practitioners.

Blockchain Bubble Or Revolution

Commercializing Blockchain

A Brain-Friendly Guide for Blockchain, from Bitcoin to Ethereum Deep-Dive

A Deep Dive Into Distributed Ledgers, Consensus Protocols,... Smart Contracts, Dapps,

Cryptocurrencies, Ethereum

Blockchain, Bitcoin and Ethereum

Blockchain Technology for Data Privacy Management

Blockchain, Bitcoin and Crypto Revolution

**This book addresses one of the most overlooked practical, methodological, and moral questions in the journey to secure and handle the massive amount of data being generated from smart devices interactions: the integration of Blockchain with 5G-enabled IoT. After an overview, this book discusses open issues and challenges, which may hinder the growth of Blockchain technology. Then, this book presents a variety of perspectives on the most pressing questions in the field, such as: how IoT can connect billions of objects together; how the access control mechanisms in 5G-enabled industrial environment works; how to address the real-time and quality-of-service requirements for industrial applications; and how to ensure scalability and computing efficiency. Also, it includes a detailed discussions on the complexity of adoption of Blockchain for 5G-Enabled IoT and presents comparative case studies with respect to various performance evaluation metrics such as**

scalability, data management, standardization, interoperability and regulations, accessibility, human-factors engineering and interfaces, reliability, heterogeneity, and QoS requirements. This book acts as a professional guide for the practitioners in information security and related topics.

The book focuses on the power of business blockchain. It gives an overview of blockchain in traditional business, marketing, accounting and business intelligence. The book provides a detailed working knowledge of blockchain, user cases of blockchain in business, cryptocurrency and Initial Coin Offering(ICO) along with the risks associated with them. The book also covers the detailed study of decentralization, mining, consensus, smart contracts, concepts and working of distributed ledgers and hyper ledgers as well as many other important concepts. It also details the security and privacy aspects of blockchain. The book is beneficial for readers who are preparing for their business careers, those who are working with small scale businesses and startups, and helpful for business executives, managers, entrepreneurs, bankers, government officials and legal professionals who are looking to blockchain for secure financial transactions. The book will also be beneficial for researchers and students who want to study the latest developments of blockchain.

Define your enterprise blockchain system using the AWS blockchain managed service. **KEY FEATURES** ● Practical implementation of blockchain applications across Healthcare, Banking, and Finance. ● Covers complete solutions, including writing smart contracts, executing chain codes, and deploying blockchain private networks. ● Best practices to write smart contracts, add authentication, manage security, and create Ethereum wallets. **DESCRIPTION** Building Enterprise Blockchain Solutions on AWS is a step-by-step guide for building, deploying, and managing decentralized applications on the AWS Blockchain. You will learn to build real-world decentralized applications for the Healthcare supply chain, Asset Tracker, and bank auditing applications with Hyperledger Fabric and Ethereum. The first section introduces you to the world of blockchain, AWS Blockchain offerings, and the Quantum Ledger Database. The second section introduces the concepts of Hyperledger Fabric, building the Hyperledger Fabric network with the Amazon Managed Blockchain, running the chaincode for the healthcare supply chain, building the API and UI using the Fabric node.js SDK, and adding members to the Fabric network on AWS. The third section focuses on Ethereum concepts, writing smart contracts with Solidity and deploying to the Ethereum private network on AWS with Blockchain templates, building and running the Asset Tracker dApp with Web3js and Truffle on AWS, and testing smart contracts. This book will help you to master Ethereum, Hyperledger Fabric, and the AWS Blockchain. You will be able to develop dApps for any domain, build private networks, and run your dApps on the AWS Blockchain. You will be an expert in writing and running smart contracts with Solidity and node.js chaincodes. **WHAT YOU WILL LEARN** ● Learn Hyperledger Fabric to build your private blockchain network. ● Write and deploy smart contracts on both Ethereum and Hyperledger Fabric. ● Add security, authentication, and keep monitoring the performance of dApps. ● Practical exposure of blockchain explorer,

Truffle, Web3js, Ganache, Etherscan, Metamask, Ethereum wallet, and Remix. ● Explore the Amazon Quantum Ledger Database and ready Ethereum templates. WHO THIS BOOK IS FOR This book is well-crafted for software developers, system architects, application developers, and aspiring blockchain developers who want to create decentralized applications (dApps) at speed without wasting time in concepts and making complete use of Amazon-managed blockchains. Readers with some understanding of Ethereum and smart contracts would be helpful to speed up the learning of the concepts although it not an essential requirement. TABLE OF CONTENTS 1. An Introduction to a Blockchain 2. Exploring a Blockchain on AWS 3. Exploring the Amazon Quantum Ledger Database 4. Exploring Hyperledger Fabric 5. The AWS Managed Blockchain to Create a Fabric Network 6. Developing the Chaincode, API, and UI with the Fabric SDK on AWS 7. Adding Members to the Fabric Network on AWS 8. Deep Dive into the Ethereum Blockchain 9. The AWS Blockchain Template to Create a Private Ethereum Network 10. The Solidity Smart Contract Language 11. Creating and Deploying the Asset Tracker Contract on AWS 12. Testing and Interacting with the Asset Tracker on AWS

Become a Blockchain developer and design, build, publish, test, maintain and secure scalable decentralized Blockchain projects using Bitcoin, Ethereum, NEO, EOS and Hyperledger. This book helps you understand Blockchain beyond development and crypto to better harness its power and capability. You will learn tips to start your own project, and best practices for testing, security, and even compliance. Immerse yourself in this technology and review key topics such as cryptoeconomics, coding your own Blockchain P2P network, different consensus mechanisms, decentralized ledger, mining, wallets, blocks, and transactions. Additionally, this book provides you with hands-on practical tools and examples for creating smart contracts and dApps for different blockchains such as Ethereum, NEO, EOS, and Hyperledger. Aided by practical, real-world coding examples, you'll see how to build dApps with Angular utilizing typescript from start to finish, connect to the blockchain network locally on a test network, and publish on the production mainnet environment. Don't be left out of the next technology revolution - become a Blockchain developer using The Blockchain Developer today. What You'll Learn Explore the Blockchain ecosystem is and the different consensus mechanisms Create miners, wallets, transactions, distributed networks and DApps Review the main features of Bitcoin: Ethereum, NEO and EOS, and Hyperledger are Interact with popular node clients as well as implementing your own Blockchain Publish and test your projects for security and scalability Who This Book Is For Developers, architects and engineers who are interested in learning about Blockchain or implementing Blockchain into a new greenfield project or integrating Blockchain into a brownfield project. Technical entrepreneurs, technical investors or even executives who want to better understand Blockchain technology and its potential.

The Science and Secrets of Blockchain Technolog  
Bitcoin Blockchain  
A Comprehensive Introduction

**The new wave for Industrial Automation**  
**Beginning Blockchain**  
**Blockchain for 5G-Enabled IoT**  
**Strategic Applications in the Real World**

*Distributed ledgers, decentralization and smart contracts explained About This Book Get to grips with the underlying technical principles and implementations of blockchain. Build powerful applications using Ethereum to secure transactions and create smart contracts. Explore cryptography, mine cryptocurrencies, and solve scalability issues with this comprehensive guide. Who This Book Is For This book appeals to those who wish to build fast, highly secure, transactional applications. This book is for those who are familiar with the concept of blockchain and are comfortable with a programming language. What You Will Learn Master the theoretical and technical foundations of blockchain technology Fully comprehend the concept of decentralization, its impact and relationship with blockchain technology Experience how cryptography is used to secure data with practical examples Grasp the inner workings of blockchain and relevant mechanisms behind Bitcoin and alternative cryptocurrencies Understand theoretical foundations of smart contracts Identify and examine applications of blockchain technology outside of currencies Investigate alternate blockchain solutions including Hyperledger, Corda, and many more Explore research topics and future scope of blockchain technology In Detail Blockchain is a distributed database that enables permanent, transparent, and secure storage of data. The blockchain technology is the backbone of cryptocurrency – in fact, it's the shared public ledger upon which the entire Bitcoin network relies – and it's gaining popularity with people who work in finance, government, and the arts. Blockchain technology uses cryptography to keep data secure. This book gives a detailed description of this leading technology and its implementation in the real world. This book begins with the technical foundations of blockchain, teaching you the fundamentals of cryptography and how it keeps data secure. You will learn about the mechanisms behind cryptocurrencies and how to develop applications using Ethereum, a decentralized virtual machine. You will explore different blockchain solutions and get an exclusive preview into Hyperledger, an upcoming blockchain solution from IBM and the Linux Foundation. You will also be shown how to implement blockchain beyond currencies, scalability with blockchain, and the future scope of this fascinating and powerful technology. Style and approach This comprehensive guide allows you to build smart blockchain applications and explore the power of this database. The book will let you quickly brush up on the basics of the blockchain database, followed by advanced implementations of blockchain in currency, smart contracts, decentralization, and so on.*

*MASTERING BLOCKCHAIN - THIRD EDITION A Deep Dive Into Distributed Ledgers, Consensus Protocols,... Smart Contracts, Dapps, Cryptocurrencies, Ethereum Mastering Blockchain A deep dive into distributed ledgers, consensus protocols, smart contracts, DApps, cryptocurrencies, Ethereum, and more, 3rd Edition Packt Publishing Ltd*

*The accessible, non-technical guide to applying and benefiting from blockchain technology. Blockchain has grown at an enormous rate in a very short period of time. In a business context, blockchain can level the playing field between small and large organisations in several ways: Exact copies of the immutable, time-stamped data is held by all parties, all transactions can be viewed in real time, data blocks are cryptographically linked, all raw materials are traceable and smart contracts ensure no middle-men, ease of audit and reduced friction. The trust, transparency, security, quality and reduced costs of blockchain make it a game-changing technology that crosses sectors, industries and borders with ease. Even though the technologies are ready for adoption, businesses remain largely unaware of their full potential and effective implementation. End users require accurate and up-to-date information on the practical applications of blockchain — Commercializing Blockchain provides it. A practical and*

*easy-to-understand guide to blockchain, this timely book illustrates how this revolutionary technology can be used to transform governments, businesses, enterprises and entire communities. The author draws from his experience with global retailers, global technology companies, UCL Centre for Blockchain technologies, the government of the UK, Retail Blockchain Consortium and many other sources to present real-world case studies on the use and benefits of blockchain. Topics include financial transactions, tokenisation, identity management, supply chain transparency, global shipping and freight, counterfeiting and more. Provides practical guidance for blockchain transactions in business operations Demonstrates how blockchain can add value and bring increased efficiency to commercial operations Covers all of the essential components of blockchain such as traceability, provenance, certification and authentication Requires no technical expertise to embrace blockchain strategies Commercializing Blockchain: Strategic Applications in the Real World is ideal for enterprises seeking to develop and deploy blockchain technology, particularly in areas retail, supply chain and consumer goods.*

*The book aims to showcase the basics of both IoT and Blockchain for beginners as well as their integration and challenge discussions for existing practitioner. It aims to develop understanding of the role of blockchain in fostering security. The objective of this book is to initiate conversations among technologists, engineers, scientists, and clinicians to synergize their efforts in producing low-cost, high-performance, highly efficient, deployable IoT systems. It presents a stepwise discussion, exhaustive literature survey, rigorous experimental analysis and discussions to demonstrate the usage of blockchain technology for securing communications. The book evaluates, investigate, analyze and outline a set of security challenges that needs to be addressed in the near future. The book is designed to be the first reference choice at research and development centers, academic institutions, university libraries and any institutions interested in exploring blockchain. UG/PG students, PhD Scholars of this fields, industry technologists, young entrepreneurs and researchers working in the field of blockchain technology are the primary audience of this book.*

*Distributed ledger technology, decentralization, and smart contracts explained, 2nd Edition*

*Foundations of Blockchain*

*Blockchain Basics Explained*

*Exploring Blockchain in Healthcare*

*The pathway to cryptocurrencies and decentralized blockchain applications*

*Convergence of Internet of Things and Blockchain Technologies*

*The Blockchain Developer*

Learn the skills to get in on the crypto craze The world of cryptocurrency includes some of the technologies and most lucrative investments available today. And you can jump right into the market the action with Cryptocurrency All-in-One For Dummies, a collection of simple and straightforward resources that will get you up to speed on cryptocurrency investing and mining, blockchain, Bitcoin, and Ethereum. Stop scouring a million different places on the web and settle in with this one-stop compilation of up-to-date and reliable info on what's been called the "21st century gold rush." Whether you're just looking for some fundamental knowledge about how cryptocurrency works or you're ready to put some money into the markets, you'll find what you need in one of the five special resources included in this book. Cryptocurrency All-in-One For Dummies will help you: Gain an understanding of how cryptocurrency works and the blockchain technologies that power crypto Find out if you're ready to invest in the cryptocurrency market and how to make smart decisions with your cash Build a cryptocurrency mining rig out of optimized and specifically chosen computing hardware Dive into the details of leading cryptocurrencies like Bitcoin and Ethereum Perfect for the curious and excited about the potential that's been unlocked by the latest in cryptocurrency technology This book will give you the foundation you need to become a savvy cryptocurrency consumer, investor,

miner before you know it.

Your one-stop guide to blockchain technology and its business applications Key Features Assimilate blockchain services such as Ethereum and Hyperledger to transform industrial applications Know how to use in and out of blockchain technology to understand various business use cases Understand various blockchain and not-so-common challenges faced in blockchain development Book Description Blockchain for Business 2019 is a comprehensive guide that enables you to bring in various blockchain functions to extend your existing business models and make correct fully-informed decisions. You will learn how decentralized applications are transforming numerous business sectors that are expected to play a major role in the future. You will see how large corporations are already implementing blockchain technology now. You will then learn about the various blockchain services, such as Bitcoin, Ethereum, Hyperledger, and others to understand their use cases in a variety of business domains. You will develop a solid and fundamental understanding of blockchain architecture. Moving ahead, you will get to grips with the inner workings of blockchain, with detailed explanations of mining, decentralized consensus, cryptography, smart contracts, and many other important concepts. You will delve into a realistic view of the current state of blockchain technology, along with its issues, limitations, and potential solutions that can take it to the next level. By the end of this book, you will all be well versed in the latest blockchain innovations and developments in the emerging blockchain space. What you will learn Understand the fundamentals of blockchain and how it was developed Gain a good understanding of economic concepts and developments Develop a base for concepts such as cryptography, computer networking, and programming Understand the applications of blockchain and its potential impact on the world Be well versed with the latest developments in the blockchain space Explore blockchain frameworks including decentralized organizational structures, networks, and applications Who this book is for This book is for financial professionals, business executives, managers, and enthusiasts who are interested in getting well-versed with blockchain technology in various business domains. This book will help you extend your existing business models using blockchain services. No prior experience of blockchain is required. If you stumbled upon this book, then you must have an interest in cryptocurrency. Maybe, however, the subject isn't all that clear for you. This book will tell you all about this new form of digital gold. Whether you are considering investing or if you just want to get some information regarding cryptocurrency, this book is for you. Whether you have some previous knowledge of cryptocurrency or none at all, you will find valuable information in this book that will help introduce you to what life with cryptocurrency really like. Furthermore, we will explore what it might mean for our future, and how this revolutionary development could advance us into the futuristic world that we all fantasized about as kids. But what is cryptocurrency, exactly? A cryptocurrency is a medium of exchange that uses cryptography to secure transactions, purchases and transfers. To sum up: cryptocurrency is the new evolution of money. In this book you will find the last three manuscripts by Leonard Eddison on the following subjects: \* Blockchain: A Deep Dive Into Blockchain: this book will focus on the Blockchain technology and the terms that it uses along with the advantages and disadvantages of using this platform \* Bitcoin: A Deep Dive Into Bitcoin: The Age Of Cryptocurrency: This book will provide you with great insight as to what cryptocurrency is, as well as what bitcoin is and how it was developed. You will understand the technical side of the coin, the monetary side of the coin, and what it could mean for our society as a whole. \* Ethereum: A Deep Dive Into Ethereum: could very well become the future of digital trading. In this book you will learn everything about the world of Ethereum and how you can use it, so that it benefits you. Through this book you will read you will learn everything that you need to know about cryptocurrency, including why it is such a hot topic and what has gotten people so excited about the idea of an entirely new digital reality existing here on earth.

Handbook of Research on Blockchain Technology presents the latest information on the adaptation and implementation of Blockchain technologies in real world business, scientific, healthcare and biomedical applications. The book's editors present the rapid advancements in existing business models by leveraging Blockchain techniques. Novel architectural solutions in the deployment of Blockchain comprise the main aspects of this book. Several use cases with IoT, biomedical engineering, and smart cities are also discussed.

incorporated. As Blockchain is a relatively new technology that exploits decentralized networks used in many sectors for reliable, cost-effective and rapid business transactions, this book is an addition on existing knowledge. Financial services, retail, insurance, logistics, supply chain, public sectors and biomedical industries are now investing in Blockchain research and technologies for business growth. Blockchain prevents double spending in financial transactions without the need for a trusted authority or central server. It is a decentralized ledger platform that facilitates verifiable transactions between parties in a secure and smart way. Presents the evolution of blockchain, fundamental theories, to present forms Explains the concepts of blockchain related to cloud/edge computing, smart healthcare, smart cities and Internet of Things (IoT) Provides complete coverage of the various tools, platforms and techniques used in blockchain Explores smart contract tools and consensus algorithms Covers a variety of applications with real world case studies in areas such as biomedical engineering, supply chain management, and tracking of goods and delivery

A Non-Technical Introduction in 25 Steps

Architecting Enterprise Blockchain Solutions

Protocol for Micropayments

Smart Trends in Computing and Communications

Blockchain And Distributed Ledgers: Mathematics, Technology, And Economics

How Leaders Can Create Value in a New Digital Age

1st International Conference MARBLE 2019, Santorini, Greece

*Competition, the drive for efficiency, and continuous improvement ultimately push businesses toward automation and later towards autonomy. If a business can operate without human intervention, it will minimize its operational cost. If Uber can remove the expense of a driver with an autonomous vehicle, it will provide its service cheaper than a competitor who can't. If an artificially intelligent trading company can search, find, and take advantage of some arbitrage opportunity, then it can profit where its competitors cannot. A business that can analyze and execute in real-time without needing to wait for a human to act, is a business that will be able to take advantage of brief inefficiencies from other markets or businesses. This trend following a thesis that is based on 100 years of proven economic theory. Short-wave economic cycles, those 5- to 10-year cycles, are driven by credit but the long-wave economic cycles, those 50- to 60-year cycles, are driven by technological revolution. We've had 5 cycles over the past 200 years with the last wave, the Age of Information & Telecommunications. We've seen evidence that a new cycle has begun. Technological revolutions come by way of a cluster of new innovations. About a decade ago, you started to see AI, robotics and IoT (sensors) delivering on automation. That's been powerful, but not transformational. It does not force businesses to fundamentally change how they do business. The last piece of the puzzle was cryptocurrency because it allows us to process and transfer economic value without human intervention. Soon, there will be a global race to build autonomous operations. Businesses and organizations without autonomous operations simply will not be able to compete with those that do because ... autonomy is the ultimate competitive advantage. Crypto is the mechanism that will accrue value from being the infrastructure for the next digital financial revolution. Crypto Asset Investing*

*lays out a case that we've begun a new technological revolution similar to the Internet Age of the 1990's. Artificial intelligence, the Internet of Things, robotics and cryptocurrency are converging to deliver on a new age, what I call the Age of Autonomy. Understanding the transformation that's taken place before anyone else can yield enormous investment opportunity. In this book, you'll learn how and why to invest in crypto assets.*

*This book examines blockchain technology in depth and explains how consumers might benefit from it. Blockchain has contained both a social promise and new technology since its inception. Blockchains, which were first presented as a solution for Bitcoin's cryptocurrency record-keeping system, are currently utilized to store records for a wide range of applications.*

*Intermediaries are used in core services that we all rely on, such as money transfers, voting, property records, IP rights, and identity. These old systems have begun to be replaced with blockchain software. The software takes on the role of a trustworthy record-keeping system, with the software's rules serving as intermediates. This book discusses the principles of blockchain technology and assumes that the reader knows nothing about it. Topics are explained as simply as possible while avoiding obfuscating details that may be important to the reader. It also provides the reader with an overview of the key distinctions in blockchain software, as well as a fundamental grasp of how and why these systems operate. After reading this book, the reader will be able to speak confidently about the subject and understand significant technological differences. The reader will also gain valuable insight into the security flaws and limitations of blockchain software.*

*Have you heard about Cryptocurrency or Blockchain Technology, but you are still vague about what they are and how they work? Then this book is for you! Blockchain Technology is the most significant innovation since the internet and it is about to take the world by storm. Blockchains will completely change the way that our Governments, Financial Institutions, and Health and Business Systems across the globe process transactions and exchange information. This revolutionary new technology is a multi-purpose tool which can be used in countless applications and will soon impact upon every single one of us from all walks of life. Blockchain Basics Explained provides concise information on all aspects of Blockchains, Wallets, Mining, Smart Contracts and ICO's. In addition, this book will provide practical guidance and instruction on working with blockchains and how to buy, store and invest in cryptocurrencies including Bitcoin, Ethereum, Litecoin and Ripple. You will also discover how to spot and avoid scams. Unlike other books on these subjects, no fancy formulas or technical jargon is used, and no previous experience of any of the topics is required. Inside you will learn the answers to; Are Cryptocurrencies a sound investment? What is a Block and how is it made? How do Blockchain components interact? What problems does Blockchain solve? What started the Blockchain Revolution? Why are current*

*Financial Services disrupted? Could Blockchain Technology replace our institutions altogether? What are the main Blockchain pros and cons? What is the truth behind Blockchain myths? What are the Blockchain main application scenarios? Why is Ethereum relevant? What is the Bitcoin story? How secure are your Bitcoins? What is Litecoin and how can it be used? What are the alternative Blockchains? Smart Contracts explained. What are they and are they legally binding? How does mining work and is it necessary? Where does Ripple come into this? What is ICO and how does it work? What are Wallets and what function do they have? How can you Invest and make money with Cryptocurrency and Blockchain right now? How to spot and avoid scams. What is the future of Blockchain? What are the main Blockchain Technology terms? What are the benefits of the de-centralised Blockchain Technology? And much more! Don't get left behind. Scroll to the top and pick up your copy of Blockchain Basics Explained today! You Don't need a Kindle to read this eBook. You can easily download it and read on your PC, Mac, Smart Phone, Tablet, iPad or Kindle device. Related: Satoshi Nakamoto, Cryptographic hash, timestamp, OmiseGO, distributed ledger, protocol, Decentralized, transaction processing, NEO, double-spending, Stellar, records management, merkle trees hard fork, node, investment, permissionless, permissioned private blockchain, metadata, automated data interchange, the big four, trading bitcoins, private blockchain, Cardano, Ox, Waves, public blockchain, consortium blockchain, blockchain technology, what is blockchain, how is blockchain used, the blockchain, what is cryptocurrency, blockchain books, how blockchain works, blockchain wallet, economics, ICO, Bitcoin, cryptocurrency, digital assets, peer to peer, the future of money, the blockchain revolution, invest with cryptocurrency, blockchain problems, blockchain uses, blockchain applications, blockchain myths, financial services disrupted, master Bitcoin, Ethereum Litecoin, Ripple, Wallets, Mining, IOTA, Internet of things*

*Have you heard of blockchain? Do you want to know more about it? Then this is the book for you! In this book, you will learn everything that you need to know about blockchain so that you can make an informed decision on whether or not you want to invest in it. In this book, you are going to learn 1. Blockchain technology 2. Terms that are used with blockchain 3. The advantages of using blockchain 4. Myths that are circling the world about blockchain. There is so much more in this book, and it is my hope that you learn everything that you need to know about blockchain!*

*How it Works and Creates Value*

*Blockchain and cryptocurrencies technologies and network structures: applications, implications and beyond*

*The Present and Future of Blockchain and Cryptocurrencies*

*Blockchain*

*Blockchain for Business 2019*

*The Executive Guide to Blockchain*

*Why Blockchain: The Complete Guide to Understanding Bitcoin and Blockchain*

Blockchain is transforming business. What's your strategy? Leaders of forward-thinking organizations are exploring how blockchain can transform the way they create and seek value. Whether it's used to streamline multiparty processes, create and trade new assets, or leverage artificial intelligence and the internet of things, blockchain enables entirely new business opportunities. This is just the start. As blockchain becomes more widely adopted, it has the potential to radically change the way companies and societies operate, as transformative a paradigm shift as the launch of the internet. *The Real Business of Blockchain* is one of the first books on this transformative technology written for business leaders. Authors David Furlonger and Christophe Uzureau--both of Gartner, the world-renowned research and advisory company--will help you: Assess how blockchain will impact your business Explore the value proposition that blockchain offers Make smart near- and midterm investments Position your organization in a new competitive landscape Timely, visionary, and accessible, *The Real Business of Blockchain* cuts through the hype and helps you unlock the vast capabilities of this powerful and potentially world-changing technology. This book provides a comprehensive introduction to blockchain and distributed ledger technology. Intended as an applied guide for hands-on practitioners, the book includes detailed examples and in-depth explanations of how to build and run a blockchain from scratch. Through its conceptual background and hands-on exercises, this book allows students, teachers and crypto enthusiasts to launch their first blockchain while assuming prior knowledge of the underlying technology. How do I build a blockchain? How do I mint a cryptocurrency? How do I write a smart contract? How do I launch an initial coin offering (ICO)? These are some of questions this book answers. Starting by outlining the beginnings and development of early cryptocurrencies, it provides the conceptual foundations required to engineer secure software that interacts with both public and private ledgers. The topics covered include consensus algorithms, mining and decentralization, and many more. "This is a one-of-a-kind book on Blockchain technology. The authors achieved the perfect balance between the breadth of topics and the depth of technical discussion. But the real gem is the set of carefully curated hands-on exercises that guide the reader through the process of building a Blockchain right from Chapter 1." Volodymyr Babich, Professor of Operations and Information Management, McDonough School of Business, Georgetown University "An excellent introduction of DLT technology for a non-technical audience. The book is replete with examples and exercises, which greatly facilitate the learning of the underlying processes of blockchain technology for all, from students to entrepreneurs." Serguei Netessine, Dhirubhai Ambani Professor of Innovation and Entrepreneurship, The Wharton School, University of Pennsylvania "Whether you want to start from scratch or deepen

your blockchain knowledge about the latest developments, this book is an essential reference. Through clear explanations and practical code examples, the authors take you on a progressive journey to discover the technology foundations and build your own blockchain. From an operations perspective, you can learn the principles behind the distributed ledger technology relevant for transitioning towards blockchain-enabled supply chains. Reading this book, you'll get inspired, be able to assess the applicability of blockchain to supply chain operations, and learn from best practices recognized in real-world examples." Ralf W. Seifert, Professor of Technology and Operations Management at EPFL and Professor of Operations Management at IMD

The future will be increasingly distributed. As the publicity surrounding Bitcoin and blockchain has shown, distributed technology and business models are gaining popularity. Yet the disruptive potential of this technology is often obscured by hype and misconception. This detailed guide distills the complex, fast moving ideas behind blockchain into an easily digestible reference manual, showing what's really going on under the hood. Finance and technology pros will learn how a blockchain works as they explore the evolution and current state of the technology, including the functions of cryptocurrencies and smart contracts. This book is for anyone evaluating whether to invest time in the cryptocurrency and blockchain industry. Go beyond buzzwords and see what the technology really has to offer. Learn why Bitcoin was fundamentally important in blockchain's birth Learn how Ethereum has created a fertile ground for new innovations like Decentralized Finance (DeFi), Non-Fungible Tokens (NFTs) and Flash Loans Discover the secrets behind cryptocurrency prices and different forces that affect the highly volatile cryptocurrency markets Learn how cryptocurrencies are used by criminals to carry out nefarious activities Discover how enterprise and governments are leveraging the blockchain including Facebook Understand the challenges of scaling and forking a blockchain Learn how different blockchains work Learn the language of blockchain as industry terms are explained Keeping up with fast evolving technology is a challenge that every business leader faces. As organisations start to wake up to the Fourth Industrial Revolution, it's becoming more important than ever to be able to utilise and exploit new digital platforms. With the simple aim of demystifying blockchain for business leaders, The Executive Guide to Blockchain offers a jargon-free explanation and framework to better understand blockchain technologies and their impact on organizations. Enabling any business leader with or without specific computing knowledge to reap the benefits of blockchain whilst understanding the limitations, this book will empower you to: Identify opportunities for blockchain in your own business sectors Understand smart contracts and their relationship with the law Create a blockchain strategy and business case Implement blockchain technologies and maximise their potential. Written by experts in non-technical language, this practical resource can be applied to any industry, and arm you with the knowledge needed to capture the

possibilities of digital business.

Cryptocurrency

Unblockchain

Blockchain for Business

How to invest for beginners: Complete Explanation of blockchain technology with detailed history of cryptocurrency and basics guide for how to invest in crypto for dummies

The Real Business of Blockchain

A deep dive into distributed ledgers, consensus protocols, smart contracts, DApps, cryptocurrencies, Ethereum, and more, 3rd Edition

A Look Inside the Decentralised Economy - Is It Advancing or at the Brink of Destruction?

Blockchain technology is a combination of three popular concepts: cryptography, peer-to-peer networking, and game theory. This book is for anyone who wants to dive into blockchain from first principles and learn how decentralized applications and cryptocurrencies really work. Learn blockchain from first concepts to algorithms explained in Python.

Recently, cryptocurrencies have made major news headlines. Some people have invested in them, while others have watched in confusion, not sure what it all means. Kyle Michaud admirably takes on the task of unraveling the complexities, taking us through the history of Bitcoin 's beginnings before delving into Blockchain 's great potential as a distributed decentralized database to change the current third-party paradigm when it comes to everything from healthcare to banking to car sales. You won 't find a clearer explanation for Blockchain anywhere, nor a more practical guide in terms of how it can concretely be applied to your everyday life.

Distributed technologies work without the necessity of a middleman. Until blockchain technology came into the limelight, users were forced to exchanged value and trade employing a third-party intermediary. What started off as a means to solve the barriers around global transaction of currencies, is now being evolved into a technological paradigm shift that could potentially impact and improve many forms of industries. A lot of people around the world confuses the market dynamics and conditions of cryptocurrencies with the underlying technology. Every time the market goes bullish, it is branded as a bubble. When it corrects by over 80%, it is branded as a scam. But how many of us looked at the US stock market charts and compared it with the performance of the cryptocurrencies? Bitcoin has paved the way for a new technological evolution, but is the technology maturing or is it at the brink of destruction? What are the real-life use cases? This book is an attempt to look into the world of decentralisation and why they are beneficial for society. As scalability is an essential factor for the existence of blockchain, this book sheds light on the current advancement in solving immediate scalability problems and how it could revolutionise the financial and economic sector. This is not an attempt to explain

speculative use cases. In essence, it is an attempt to highlight the existing companies that have successfully built a product, the startups working around the world to solve the scalability issues around blockchain technology. To separate the signal from the noise, this book is a must-read for the technology enthusiasts. Farabi, the author of Exponential Progress, is the Head of Research at IntelXSys™ and working as one of the Research Experience Leads for Clinical Research and Innovation (CRI) module at the Imperial College London. He has worked with over 100 companies as a technology consultant and spoken at a number of international conferences around the world.

Blockchain technology is bringing together concepts and operations from several fields, including computing, communications networks, cryptography, and has broad implications and consequences thus encompassing a wide variety of domains and issues, including Network Science, computer science, economics, law, geography, etc. The aim of the paper is to provide a synthetic sketch of issues raised by the development of Blockchains and Cryptocurrencies, these issues are mainly presented through the link between on one hand the technological aspects, i.e. involved technologies and networks structures, and on the other hand the issues raised from applications to implications. We believe the link is a two-sided one. The goal is that it may contribute facilitating bridges between research areas.

Building Enterprise Blockchain Solutions on AWS

The Definitive Beginner's Guide to Blockchain Technology and Cryptocurrencies, Smart Contracts, Wallets, Mining, Ico, Bitcoin, Ethereum, Litecoin and Ripple.

Using Smart Contracts and Digital Currencies in your Business

Mastering Blockchain

Bitcoin, Blockchain, and Cryptoassets

Cryptocurrency All-in-One For Dummies

Blockchain Basics

*This book presents chapters from diverse range of authors on different aspects of how Blockchain and IoT are converging and the impacts of these developments. The book provides an extensive cross-sectional and multi-disciplinary look into this trend and how it affects artificial intelligence, cyber-physical systems, and robotics with a look at applications in aerospace, agriculture, automotive, critical infrastructures, healthcare, manufacturing, retail, smart transport systems, smart cities, and smart healthcare. Cases include the impact of Blockchain for IoT Security; decentralized access control systems in IoT; Blockchain architecture for scalable access management in IoT; smart and sustainable IoT applications incorporating Blockchain, and more. The book presents contributions from international academics, researchers, and practitioners from diverse perspectives. Presents how Blockchain and IoT are converging and the impacts of these developments on technology and its*

application; Discusses IoT and Blockchain from cross-sectional and multi-disciplinary perspectives; Includes contributions from researchers, academics, and professionals from around the world. Do you want to take part in the financial digital world of cryptocurrency? Yet find it difficult to understand or grasp all the information due to complicated explanations that need explaining in and of itself? Blockchain, Bitcoin And Crypto Revolution Or How To Invest For Beginners takes you through a simplified journey of the virtual currencies, how the technology behind it works, it's history and what you can do with it. You don't need any prior knowledge to understand cryptocurrency investments. It includes strategies, advantages and a realistic approach to trading and investing in the crypto world as well as delving into future aspects and opportunities that may be coming your way. Furthermore taking a peak at investing in tech companies such as Tesla or Apple. It is filled with examples of both successes and cautionary tales in order to keep your journey in investing as safe as possible. In the end, you will be equipped with a foundational knowledge to get you started on your investing journey ahead, boosting your possibilities of success in a turbulent investment world. Covering a realistic and unbiased approach towards investing and cryptocurrency, it will allow you to not only see the benefits, but also the risks you will undertake when deciding to invest. You will also learn to look out for scams such as ponzi schemes. So take your first step into cryptocurrency, and let your knowledge expand to understanding the digital future.

Some experts say that cryptocurrencies and blockchains are just a scam; others say they're "the most important invention since the internet." It's hard to tell who's right. Authored by Product Managers from Google, Microsoft, and Facebook, Bubble or Revolution cuts through the hype to offer a balanced, comprehensive, and accessible analysis of blockchains and cryptocurrencies. You'll learn the core concepts of these technologies and understand their strengths and weaknesses from real-world case studies; dive deep into their technical, economic, political, and legal complexities; and gain insights about their future from exclusive interviews with dozens of tech industry leaders. No coding or math needed! Are cryptocurrencies and blockchains a bubble or a revolution? We'll help you decide for yourself. What's inside: Bitcoin and the blockchain How Bitcoin and blockchains work from a technical perspective with no assumed technical knowledge Satoshi Nakamoto and the history of Bitcoin, the original blockchain A thorough overview of crucial crypto concepts (eg. blocks, keys, mining, nodes, etc.) Frameworks for understanding when it actually makes sense to use

blockchain Major application scenarios for blockchain and cryptocurrencies and where it'll fall flat Public blockchains and altcoins Emerging trends in blockchain technology What you should know before buying any cryptocurrency An overview of Ethereum and smart contracts An overview of the strengths and weaknesses of the top altcoins and stable coins, including Monero (XMR), Tether (USDT), and Bitcoin Cash (BCH) Alternatives to blockchain and cryptocurrencies New kinds of decentralized ledger technology (dlt) The economics of both traditional payment methods and cryptocurrencies Cryptocurrency security best practices and major breach case studies Private blockchains How blockchain, cryptocurrencies, and traditional banking and finance will interact with one another in the future Public blockchains vs private blockchains Limitations and shortcomings of public blockchains and cryptocurrencies The role of blockchain in the strategy of top tech companies like Facebook and Microsoft Case studies of how non-tech companies are effectively utilizing blockchain (eg. Walmart using it to prevent foodborne illness) Business blockchain case studies ranging from gaming (e.g. Xbox) to cloud services (e.g. Microsoft Azure's blockchain-as-a-service and Amazon's AWS offering) Blockchain's use for big data, internet of things (IoT), and machine learning (ML) Cryptocurrency regulation and policy ICOs vs STOs vs IPOs ICOs' status as securities The SEC's STO rules and Reg A+/CF/D/S KYC and AML laws The debate over whether cryptocurrencies are securities The official stance of various countries on crypto An overview of crypto policy and regulatory hurdles The role of crypto in emerging markets and China Digital democracy and voting on the blockchain The future of decentralized technology If, how, and when the tokenization of national currencies will play out Facebook and WhatsApp's upcoming cryptocurrencies Currency tokenization and China's efforts to tokenize the yuan Blockchain, IoT, and the tangle Cryptocurrencies vs. fiat vs. the gold standard Predictions about the future of money, business, and currency Why blockchains would do better on Mars than Earth

In 25 concise steps, you will learn the basics of blockchain technology. No mathematical formulas, program code, or computer science jargon are used. No previous knowledge in computer science, mathematics, programming, or cryptography is required. Terminology is explained through pictures, analogies, and metaphors. This book bridges the gap that exists between purely technical books about the blockchain and purely business-focused books. It does so by explaining both the technical concepts that make up the blockchain and their role in business-relevant applications. What You'll Learn What the blockchain is Why it is

*needed and what problem it solves Why there is so much excitement about the blockchain and its potential Major components and their purpose How various components of the blockchain work and interact Limitations, why they exist, and what has been done to overcome them Major application scenarios Who This Book Is For Everyone who wants to get a general idea of what blockchain technology is, how it works, and how it will potentially change the financial system as we know it*

*MASTERING BLOCKCHAIN - THIRD EDITION*

*Handbook of Research on Blockchain Technology*

*Proof of Authenticity: Facts About Blockchain*

*Build Your Own Blockchain*

*A user-friendly introduction to blockchain technology and its business applications*

*A Deep Dive Into Blockchain*

*Implementation and Impact of Distributed Database Across Pharmaceutical Supply Chain, Drugs Administration, Healthcare Insurance and Patient Administration (English Edition)*

An overview of the Healthcare Industry and Applications of the Blockchain **KEY FEATURES** ● Includes graphical representations and architecture schematics for healthcare processes powered by the blockchain technology. ● Real-world examples of how medical and pharma companies can use a blockchain in healthcare. ● Includes algorithms and procedures for smart contracts to provide more in-depth knowledge. **DESCRIPTION** This book aims to analyze the role of blockchain technology in healthcare and how medical tech teams can establish a digital and linked healthcare system for the modern-day. After reading this book, readers will be able to create, develop, and implement blockchain-based healthcare business cases. This book explains methods by which readers can understand several sectors of the healthcare industry, including pharmaceutical supply chain, healthcare insurance, drug administration, biological instruments, and smart labs, genomics, vaccination administration and policies, and the processing of healthcare data. The book also discusses Ethereum, Hyperledger, Multichain, and other popular blockchain frameworks in detail, with examples drawn from the real world. This book contains sample scripts, algorithms, processes, and an architectural design that may effectively illustrate the healthcare process. After reading the book, readers will be able to create new blockchain-based products and processes to address various healthcare problems. Regardless of the level of technical experience of the reader, this book will guide them through developing blockchain-based use cases. **WHAT YOU WILL LEARN** ● Acquaint yourself with the blockchain technology and the connected-healthcare system. ● Develop and implement blockchain-enabled smart contracts. ● Utilize cutting-edge technologies such as artificial intelligence/machine learning, big data, and cloud computing in conjunction with a blockchain. ● Develop a blockchain-based paradigm for sharing medical and healthcare data with ecosystem partners. ●

Tokenize assets to create new revenue streams and business prospects.

● Implement effective healthcare policy implementation in the areas of medications and vaccinations. WHO THIS BOOK IS FOR This book is intended for blockchain consultants, digital transformation experts, CxOs, medical technology professionals, and blockchain enthusiasts who are interested in exploring, comprehending, and transforming traditional medical IT infrastructure into a Blockchain-powered powerful company. Although no such prior knowledge of programming is needed, the basics of coding would be helpful. TABLE OF CONTENTS 1. An Overview of the Healthcare Industry 2. Blockchain Fundamentals 3. Blockchain's Application in Healthcare 4. Blockchain in EHR and HIS 5. Pharmaceutical Supply Chain and Drug Administration 6. Blockchain in the Healthcare Insurance Industry 7. Digital Medical Certificates and Prescriptions 8. Medical Equipment and Smart Labs 9. Understanding Genomics 10. Vaccination and Other Healthcare Policies

Understand the nuts and bolts of Blockchain, its different flavors with simple use cases, and cryptographic fundamentals. You will also learn some design considerations that can help you build custom solutions. Beginning Blockchain is a beginner's guide to understanding the core concepts of Blockchain from a technical perspective. By learning the design constructs of different types of Blockchain, you will get a better understanding of building the best solution for specific use cases. The book covers the technical aspects of Blockchain technologies, cryptography, cryptocurrencies, and distributed consensus mechanisms. You will learn how these systems work and how to engineer them to design next-gen business solutions. What You'll Learn Get a detailed look at how cryptocurrencies work Understand the core technical components of Blockchain Build a secured Blockchain solution from cryptographic primitives Discover how to use different Blockchain platforms and their suitable use cases Know the current development status, scope, limitations, and future of Blockchain Who This Book Is For Software developers and architects, computer science graduates, entrepreneurs, and anyone wishing to dive deeper into blockchain fundamentals. A basic understanding of computer science, data structure, and algorithms is helpful.

What will you learn with this book? Why is everyone talking about blockchain? What is it all about? Wouldn't it be great if there is something out there that can help you understand the latest trending technology - Blockchain in a relaxed manner with tons of graphics, which is even more fun than a barrel full of monkeys?! With this book Unblockchain, you will learn how blockchains are architected, what the main technology components are such as cryptography, hashing, applications as well as the constraints and limitations of blockchain. In this book we are going to cover in dept all the components of blockchains. We are going to understand how the hashing mechanisms work, what the cryptography role is, how transactions are signed and much more! We are also going to look at the blockchain use cases, understand the blockchain architecture and even deploy an Ethereum node and play around with the blockchain. I will help you to better understand when to use blockchain, the key concepts, the

industry jargon and a lot of additional information that will help you interact with stakeholders in any blockchain project you may get involved in. No matter what your background is, you will be able to follow along with this book and do the hands-on! After this, you will for sure be able to get involved in any blockchain project and to show off your knowledge in front of your pals! Why does this book look so different? Based on cognitive science and learning theory researches, Unblockchain uses a visually rich format to engage with your mind, rather than using solely heavy boring text. You will also have a few hands-on that will help you understand the technology by trying it yourself! This multi-sensory book is designed to turn you into a blockchain expert!