

The book was found

The Science Of The Blockchain



Synopsis

FinTech developers and managers understand that the blockchain has the potential to disrupt the financial world. The blockchain allows the participants of a distributed system to agree on a common view of the system, to track changes in the system, in a reliable way. In the distributed systems community, agreement techniques have been known long before cryptocurrencies such as Bitcoin (where the term blockchain is borrowed) emerged. Various concepts and protocols exist, each with its own advantages and disadvantages. This book introduces the basic techniques when building fault-tolerant distributed systems, in a scientific way. We will present different protocols and algorithms that allow for fault-tolerant operation, and we will discuss practical systems that implement these techniques.

Book Information

File Size: 3299 KB

Print Length: 124 pages

Publisher: Inverted Forest Publishing; 1 edition (January 27, 2016)

Publication Date: January 27, 2016

Sold by:Â Digital Services LLC

Language: English

ASIN: B01B5WMUT0

Text-to-Speech: Enabled

X-Ray: Not Enabled

Word Wise: Not Enabled

Lending: Not Enabled

Enhanced Typesetting: Not Enabled

Best Sellers Rank: #64,636 Paid in Kindle Store (See Top 100 Paid in Kindle Store) #12 inÂ Kindle Store > Kindle eBooks > Computers & Technology > Software > Business #59 inÂ Books > Computers & Technology > Business Technology > Software > Enterprise Applications #334 inÂ Books > Computers & Technology > Software

Customer Reviews

Wow - this is a terrific book for people with a deep background in computer science. The book is a gem describing the process of state replication problem between distributed computers which underlies the FinTech implementation of blockchain. The chapters include Fault-Tolerance, Consensus, Byzantine Agreement, Authenticated Agreement, Quorum Systems, Eventual

Consistency & Bitcoin and Distributed Storage.

This book is modest in size, some 110 pages of text. But it's going to be very tough going for anyone without a solid background in mathematics (such as the commonly used symbols in set theory and logic), and the computer science of distributed systems. It's a mix of writing done in a casual style, that can be a bit careless about precision and completeness, intermingled with classically formatted Definitions, Algorithms, Theorems and Lemmas, where the Algorithms are written in an Algol-like pseudo-computer language, sometimes missing key little details such as how some variable gets initialized or what means what. The reader should be comfortable with such mathematical symbols as those for subset, set membership, union, intersection, universal and existential quantifiers, power set (the number "2" followed by a superscript such as for example " V^2 " would denote the set of all subsets of " V "), empty set, and so forth. The book covers various state replication algorithms. These algorithms enable multiple communicating nodes to come to a common agreement on some shared state, with some provable degree of tolerance for nodes failing or lying. The main chapter headers are:- Fault-Tolerance and Paxos- Consensus- Byzantine Agreement- Authenticated Agreement- Quorum Systems- Eventual Consistency and Bitcoin- Distributed Storage

This is an excellent book. Whilst a bit terse, it progressively builds and illustrates a good solid Mathematical framework to the Blockchain and manages to condense it all down into a reasonable size avoiding all the fluff and hot air that normally accompanies most other books on this subject. The book also provides good potted histories at the end of each chapter, listing the references to the key academic papers for further reading into the key concepts described.

[Download to continue reading...](#)

Blockchain: The Essential Guide to Understanding the Blockchain Revolution (Blockchain Technology, Fintech, investing in Ethereum, Smart Contracts,) Blockchain: 4 Manuscripts-Blockchain, Fintech, Investing in Ethereum, and Smart Contracts Blockchain: The Comprehensive Guide to Mastering the Hidden Economy: (Blockchain Technology, Fintech, Financial Technology, Smart Contracts, Internet Technology) Blockchain: The Future of Internet Innovation - Ideas, Applications and Uses for Blockchain Technology (Taking Online Business, Fintech, and Cryptocurrencies to the Technological Edge) The Science of the Blockchain Fintech: Financial Technology Beginner Guide CherryTree Style(Fintech Book,Fintech Disruption,Fintech Blockchain,fintech programming,Financial Technologies, Fintech ebook) Blockchain: The Ultimate

Guide to Understanding the Hidden Economy Smart Contracts: How to Use Blockchain Smart Contracts for Cryptocurrency Exchange Blockchain Revolution: How the Technology Behind Bitcoin Is Changing Money, Business, and the World The Age of Cryptocurrency: How Bitcoin and the Blockchain Are Challenging the Global Economic Order The Business Blockchain: Promise, Practice, and Application of the Next Internet Technology Blockchain Explained: A Technology Guide to the Bitcoin and Cryptocurrency Fintech Revolution Blockchain: The Simple Guide To Everything You Need To Know VALUEWEB: How fintech firms are using bitcoin blockchain and mobile technologies to create the Internet of value The Bitcoin Tutorial: Develop an intuitive understanding of the currency and blockchain technology Decentralized Applications: Harnessing Bitcoin's Blockchain Technology Ethereum: A look into the world of Ethereum and everything you need to know about it's trade and investment! (Ethereum, Ethereum investing, Blockchain, Ethereum mining, Cryptocurrency) BLOCKCHAIN: Your Comprehensive Guide To Understanding The Decentralized Future (Ethereum, Fintech, Cryptocurrency, Bitcoin, Technology Trends, Technology, Internet) Cool Paper Folding: Creative Activities That Make Math & Science Fun for Kids!: Creative Activities That Make Math & Science Fun for Kids! (Cool Art with Math & Science) The Craft of Science Fiction: A Symposium on Writing Science Fiction and Science Fantasy

[Dmca](#)