



# The Science of the Blockchain

Roger  
Wattenhofer

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## The Science of the Blockchain



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FinTech developers and managers understand that the blockchain gets the potential to disrupt the financial world. This publication introduces the basic methods when building fault-tolerant distributed systems, in a scientific method. In the distributed systems community, agreement methods have been known long before cryptocurrencies such as Bitcoin (where in fact the term blockchain is definitely borrowed) emerged. We will show different protocols and algorithms that allow for fault-tolerant operation, and we will discuss practical systems that put into action these methods. The blockchain enables the individuals of a distributed program to acknowledge a common look at of the system, to track adjustments in the machine, in a trusted way. Various concepts and protocols can be found, each with its own benefits and drawbacks.



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I was completely disappointed but as I spent more time When I started going over this publication, I was completely disappointed but mainly because I spent more time, I thought it has some nuggets and is worth a few lattes at Starbucks. I would not contact this a book but instead notes taken by college student in a class. The book covers various state replication algorithms. But on a positive note, it may not be considered a poor idea to get introduced to these algorithms at one place. When you have not really encountered these algorithms in your personal computer science program, you may need to product your reading with a few google searches. I bought the Kindle edition and it is terrible. The kindle book is only a PDF viewer (even worse that that - on a desktop, you cannot even view TOC privately - terrible. Concerning the use of mathematics and mathematical notation this publication is more on the Type B types of books. The reserve can be a gem describing the process of state replication issue between distributed computer systems which underlies the FinTech implementation of blockchain. Regrettably this book did not meet my anticipations at all The book feels as though a bunch of lecture notes put together to create a quick publication by selling a publication on the fundamental theory behind blockchains. Bitcoin and Distributed Storage. Type B: Poor books that use mathematics and mathematical notation just for the sake of with them or for bragging, which as a result disturbs the natural flow of arguments and causes artificial hurdles for the reader by producing things appear more complicated then they are

actually. Was technically useful in understanding Blockchain. it i good enough for picking right up at least the It is not detail enough plus some topics are insufficient example, but also for beginners, it i good enough for picking up at least the keywords Just lecture notes put together Just by the name this seems like it's going to be a fascinating read. Wasn't advertising hype but technically useful in understanding Blockchain. I'd not advocate it to anybody. Become warned though, it really is verbose and not the right book if you're not looking for something dried out but formal. Monogram with various distributed condition replication agreement algorithms This book is modest in size, some 110 pages of text. But it's going to be very tough going for anyone with out a solid history in mathematics (like the commonly used symbols in arranged theory and logic), and the computer research of distributed systems... It is a collection of algorithms - with notes and description. But it's just bullet points here and there stage out remarks. The primary chapter headers are:- Fault-Tolerance and Paxos- Consensus- Byzantine Agreement- Authenticated Agreement- Quorum Systems- Eventual Consistency and Bitcoin- Distributed Storage Very helpful and very clear in providing understanding some of the ..It's a mix of writing done in an informal style, which can be a little bit careless about precision and completeness, intermingled with classically formatted Definitions, Algorithms, Theorems and Lemmas, where the Algorithms certainly are a written within an Algol-like pseudo-computer language, sometimes missing crucial little details such as how some variable gets initialized or what means what. Very helpful and clear in providing understanding some of the key elements of Blockchain. Assumes some knowledge of the overall operation of Blockchain implementations, requiring colateral references. It is great summary but if you would like to know information .The reader ought to be comfortable with such mathematical symbols as those for subset, set membership, union, intersection, common and existential quantifiers, power set (the number "2" followed by a superscript such as for example " $V$ " would denote the set of all subsets of " $V$ "), empty set, and so forth.. It is great summary but if you would like to know details you need to dig deeper in the other books that are listed in it. Well crafted and informative. The chapters consist of Fault-Tolerance, Consensus, Byzantine Agreement, Authenticated Contract, Quorum Systems, Eventual Consistency & Unfortunately, also if this book was simply lecture notes, they might not be good ones. Great CS introduction to blockchain Great CS introduction to blockchain. To give you an example of why: Paxos algorithm is described in under 10 pages (Seriously! much too pricy.). Furthermore, there is rarely any coherent text in the book. These algorithms enable multiple communicating nodes to come to a common contract on some shared state, with some provable amount of tolerance for nodes failing or lying. Uses mathematics to permit blockchain appear more difficult than it really is When it comes to the use of mathematics there exist only two kinds of textbooks: Type A: Good books that use mathematics and mathematical notation to support the natural flow of arguments and hence help the reader to get a deeper understanding in comparison with the insights achieved predicated on verbal non-mathematical explanations only. Well written and informative. Concise Overview of the Computer Technology of Blockchain Wow - that is a terrific book for those who have a deep background in pc science. An overarching didactical idea that manuals the reader is lacking. The mathematical notation neither support the organic movement of arguments nor will is offer deeper insights than those of less formal texts. If mathematics will not provides access to deeper insights than those achievable with a non-mathematical text, why to make use of mathematical notation to begin with? Whilst a bit terse, it progressively builds and illustrates a good solid Mathematical framework to the Blockchain and manages to condense everything down into an acceptable size avoiding all the fluff and hot air that normally accompanies most other books on this subject.? Hands off The Mathematics of the Blockchain This is a fantastic book. rip off Mediocre at best. The book also provides great potted histories at the end of every chapter, listing the references to the main element academic papers for additional reading in to the key concepts described.

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