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Altri autori (Persone)	LinDan ZhengZibin
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Nota di contenuto	Chapter 1. Overview: Blockchain data analytics from a network perspective -- Chapter 2. Dynamic and microscopic traits of typical accounts -- Chapter 3. Evolution of global driving factors in Ethereum transaction networks -- Chapter 4. Evolution and voting behaviors in the EOSIO networks -- Chapter 5.Account classification based on the homophily-heterophily graph neural networks -- Chapter 6. Phishing fraud detection based on the streaming graph algorithm -- Chapter 7. Account risk rating based on network propagation algorithm -- Chapter 8. Transaction tracking based on personalized PageRank algorithm.
Sommario/riassunto	Blockchain, a decentralized ledger technology based on cryptographic algorithms, ensures the creation of immutable and tamper-proof

ledgers in decentralized systems. The transparent nature of blockchain allows public access to transaction records, providing unprecedented opportunities for blockchain data analytics and mining. The primary value of blockchain transaction data analytics lies in two aspects: 1) by delving into the details of blockchain transaction data, we can extensively explore various types of user behavior patterns and the evolutionary process of blockchain transaction networks; and 2) analyzing blockchain transaction data aids in identifying illicit activities, offering effective regulatory solutions for the establishment of a healthier blockchain ecosystem. This book focuses on data analytics based on network-based approaches, providing a comprehensive analysis of blockchain data analytics problems, key technologies, and future directions. Different from most existing book, this book takes a unique approach to blockchain data analysis research, focusing on data analytics based on network-based approaches. Leveraging network analysis methods, the book concentrates on three main aspects of blockchain transaction data analytics and mining: (1) transaction network modelling and pattern mining, including macro and micro-level account attributes, money laundering network patterns, and network evolution patterns; (2) account business classification, such as account label prediction based on graph neural networks; and (3) anomaly behavior identification, covering phishing detection, risk scoring, and transaction tracking. Designed as a valuable resource for students, researchers, engineers, and policymakers in various fields related to blockchain data analytics, this book holds significant importance for understanding blockchain transaction behavior and addressing the detection of illicit activities in the blockchain space.