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| Autore | Zhang Guanglin |
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| Collana | Signals and Communication Technology, , 1860-4870 |
| Altri autori (Persone) | ZhaoPing ZhangAnqi |
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| Soggetti | Telecommunication Computational intelligence Machine learning Communications Engineering, Networks Computational Intelligence Machine Learning |
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| Nota di contenuto | Introduction -- Part I Privacy Issues in Data Aggregation -- LocMIA: Membership Inference Attacks against Aggregated Location Data -- Synthesizing Privacy Preserving Traces: Enhancing Plausibility with Social Networks -- DAML: Practical Secure Protocol for Data Aggregation based Machine Learning -- Enhancing Privacy Preservation in Speech Data Publishing -- Part II Privacy Issues in Indoor Localization -- Lightweight Privacy-Preserving Scheme in WiFi Fingerprint-Based Indoor Localization -- P3LOC: A Privacy-Preserving Paradigm-Driven framework for Indoor Localization -- Preserving Privacy in WiFi Localization with Plausible Dummy Locations -- Part III Privacy-Preserving Offloading in MEC -- Deep Reinforcement Learning-based Joint Optimization of Delay and Privacy in Multiple-User MEC Systems -- Load Balancing for Energy-Harvesting Mobile Edge Computing -- Learning-based Joint Optimization of Energy-Delay and Privacy in Multiple-User Edge-Cloud Collaboration MEC Systems. |
| Sommario/riassunto | This book provides a discussion of privacy in the following three parts: Privacy Issues in Data Aggregation; Privacy Issues in Indoor |

Localization; and Privacy-Preserving Offloading in MEC. In Part 1, the book proposes LocMIA, which shifts from membership inference attacks against aggregated location data to a binary classification problem, synthesizing privacy preserving traces by enhancing the plausibility of synthetic traces with social networks. In Part 2, the book highlights Indoor Localization to propose a lightweight scheme that can protect both location privacy and data privacy of LS. In Part 3, it investigates the tradeoff between computation rate and privacy protection for task offloading a multi-user MEC system, and verifies that the proposed load balancing strategy improves the computing service capability of the MEC system. In summary, all the algorithms discussed in this book are of great significance in demonstrating the importance of privacy. Addresses privacy concerns related to Data Aggregation, Indoor Localization, and Mobile Edge Computing; Introduces innovative solutions and algorithms to tackle privacy challenges; Offers readers a forward-looking perspective into future developments and challenges in privacy research.
