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Nota di contenuto	Introduction -- Compressive Sensing approaches for IoT-based healthcare devices -- Obfuscation detection and their applications -- Occupancy prediction in buildings: state of the art and future directions -- The Role of Federated Learning in Artificial Intelligence Architecture for Cancer Patients Support -- Towards Secure TinyML on a Standardized AI Architecture -- Scheduling Offloading Decisions for Heterogeneous Drones on Shared Edge Resources -- Towards the Edge Cloud Continuum through the Serverless Workflows -- Compute Continuum for Smart Agriculture: an application of LSTM networks to imputation of missing sensor data -- Performance Analysis of a Blockchain for a traceability system based on the IoT sensor units along the Agri-Food supply-chain -- Autonomous Vehicles in Smart Cities: a Deep Reinforcement Learning Solution -- Edge-to-cloud Compute

Continuum with applications to smart cities -- Edge intelligence for environmental audio classification: an approach based on Sentiment Analysis and tinyML -- Conclusion.

Sommario/riassunto

This book focuses on both theoretical and practical aspects of the “Device-Edge-Cloud continuum”, a development approach aimed at the seamless provision of next-generation cyber-physical services through the dynamic orchestration of heterogeneous computing resources, located at different distances to the user and featured by different peculiarities (high responsiveness, high computing power, etc.). The book specifically explores recent advances in paradigms, architectures, models, and applications for the “Device-Edge-Cloud continuum”, which raises many 'in-the-small' and 'in-the-large' issues involving device programming, system architectures and methods for the development of IoT ecosystem. In this direction, the contributions presented in the book propose original solutions and aim at relevant domains spanning from healthcare to industry, agriculture and transportation. Presents approaches, paradigms and architectures for the development of the Device-Edge-Cloud continuum; Describes applications of the Device-Edge-Cloud continuum in smart cities, smart agriculture, and autonomous vehicles; Proposes original solutions that aim at relevant domains spanning from healthcare to industry.
