Big-Data Analytics for Cloud, IoT and Cognitive Computing
Kai Hwang, Min Chen

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**DESCRIPTION**

The definitive guide to successfully integrating social, mobile, Big-Data analytics, cloud and IoT principles and technologies

The main goal of this book is to spur the development of effective big-data computing operations on smart clouds that are fully supported by IoT sensing, machine learning and analytics systems. To that end, the authors draw upon their original research and proven track record in the field to describe a practical approach integrating big-data theories, cloud design principles, Internet of Things (IoT) sensing, machine learning, data analytics and Hadoop and Spark programming.

Part 1 focuses on data science, the roles of clouds and IoT devices and frameworks for big-data computing. Big data analytics and cognitive machine learning, as well as cloud architecture, IoT and cognitive systems are explored, and mobile cloud-IoT-interaction frameworks are illustrated with concrete system design examples. Part 2 is devoted to the principles of and algorithms for machine learning, data analytics and deep learning in big data applications. Part 3 concentrates on cloud programming software libraries from MapReduce to Hadoop, Spark and TensorFlow and describes business, educational, healthcare and social media applications for those tools.

- The first book describing a practical approach to integrating social, mobile, analytics, cloud and IoT (SMACT) principles and technologies
- Covers theory and computing techniques and technologies, making it suitable for use in both computer science and electrical engineering programs
• Offers an extremely well-informed vision of future intelligent and cognitive computing environments integrating SMAC+ technologies

• Fully illustrated throughout with examples, figures and approximately 150 problems to support and reinforce learning

• Features a companion website with an instructor manual and PowerPoint slides www.wiley.com/go/hwangIOT

*Big-Data Analytics for Cloud, IoT and Cognitive Computing* satisfies the demand among university faculty and students for cutting-edge information on emerging intelligent and cognitive computing systems and technologies. Professionals working in data science, cloud computing and IoT applications will also find this book to be an extremely useful working resource.

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**ABOUT THE AUTHOR**

**Kai Hwang, PhD** is Professor of Electrical Engineering and Computer Science at University of Southern California, USA. He also serves as an EMC-endowed visiting Chair Professor at Tsinghua University, China. He specializes in computer architecture, wireless Internet, cloud computing and network security.

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