1. Record Nr. UNINA9910366656003321

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Titolo	Human Centric Visual Analysis with Deep Learning [[electronic resource] /] / by Liang Lin, Dongyu Zhang, Ping Luo, Wangmeng Zuo
Pubbl/distr/stampa	Singapore : , : Springer Singapore : , : Imprint : Springer, , 2020
ISBN	981-13-2387-9
Edizione	[1st ed. 2020.]
Descrizione fisica	1 online resource (XII, 156 p. 53 illus., 46 illus. in color.)
Disciplina	006.6 006.37
Soggetti	Optical data processing Pattern recognition Biometrics (Biology) Image Processing and Computer Vision Pattern Recognition Biometrics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Part I Motivation & Overview -- Chapter 1: The Foundation and Advances of Deep Learning -- Chapter 2. Human Centric Visual Analysis: Tasks and Progress -- Part II Localizing Persons in Images -- Chapter 3: Face Localization and Enhancement -- Chapter 4: Pedestrian Detection with RPN and Boosted Forests -- Part III Parsing Person In Details -- Chapter 5: Self-supervised Structure-sensitive Learning for Human Parsing -- Chapter 6: Instance-level Human Parsing -- Chapter 7: Video Instance-level Human Parsing -- Part IV Identifying and Verifying Persons -- Chapter 8: Person Verification -- Chapter 9: Face Verification -- Part V Higher Level Tasks -- Chapter 10: Human Activity Understanding.
Sommario/riassunto	This book introduces the applications of deep learning in various human centric visual analysis tasks, including classical ones like face detection and alignment and some newly rising tasks like fashion clothing parsing. Starting from an overview of current research in human centric visual analysis, the book then presents a tutorial of basic concepts and techniques of deep learning. In addition, the book

systematically investigates the main human centric analysis tasks of different levels, ranging from detection and segmentation to parsing and higher-level understanding. At last, it presents the state-of-the-art solutions based on deep learning for every task, as well as providing sufficient references and extensive discussions. Specifically, this book addresses four important research topics, including 1) localizing persons in images, such as face and pedestrian detection; 2) parsing persons in details, such as human pose and clothing parsing, 3) identifying and verifying persons, such as face and human identification, and 4) high-level human centric tasks, such as person attributes and human activity understanding. This book can serve as reading material and reference text for academic professors / students or industrial engineers working in the field of vision surveillance, biometrics, and human-computer interaction, where human centric visual analysis are indispensable in analysing human identity, pose, attributes, and behaviours for further understanding.