

## *Learning Binary Codes For Collaborative Filtering*

**The three-volume set LNCS 101164, 11165, and 11166 constitutes the refereed proceedings of the 19th Pacific-Rim Conference on Multimedia, PCM 2018, held in Hefei, China, in September 2018. The 209 regular papers presented together with 20 special session papers were carefully reviewed and selected from 452 submissions. The papers cover topics such as: multimedia content analysis; multimedia signal processing and communications; and multimedia applications and services.**

**Learning Technologies and User Interaction explores the complex interplay between educational technologies and those who rely on them to construct knowledge and develop skills. As learning and training continue to move onto digital platforms, tools such as artificial intelligence, predictive analytics, video games, virtual reality, and more hold considerable potential to foster advanced forms of synergy across contexts. Showcasing a variety of contributors who are attuned to today's networked technologies, environments, and learning dynamics, this book is ideal for students and scholars of educational technology, instructional design, professional development, and research methods.**

**This book offers a systematic introduction to an understanding-oriented approach to multimedia content analysis. It integrates the visual understanding and learning models into a unified framework, within which the visual understanding guides the model learning while the learned models improve the visual understanding. More specifically, it discusses multimedia content representations and analysis including feature selection, feature extraction, image tagging, user-oriented tag recommendation and understanding-oriented multimedia applications. The book was nominated by the University of Chinese Academy of Sciences and China Computer Federation as an outstanding PhD thesis. By providing the fundamental technologies and state-of-the-art methods, it is a valuable resource for graduate students and researchers working in the field computer vision and machine learning.**

**Big Data Analytics for Sensor-Network Collected Intelligence explores state-of-the-art methods for using advanced ICT technologies to perform intelligent analysis on sensor collected data. The book shows how to develop systems that automatically detect natural and human-made events, how to**

**examine people's behaviors, and how to unobtrusively provide better services. It begins by exploring big data architecture and platforms, covering the cloud computing infrastructure and how data is stored and visualized. The book then explores how big data is processed and managed, the key security and privacy issues involved, and the approaches used to ensure data quality. In addition, readers will find a thorough examination of big data analytics, analyzing statistical methods for data analytics and data mining, along with a detailed look at big data intelligence, ubiquitous and mobile computing, and designing intelligence system based on context and situation. Indexing: The books of this series are submitted to EI-Compendex and SCOPUS Contains contributions from noted scholars in computer science and electrical engineering from around the globe Provides a broad overview of recent developments in sensor collected intelligence Edited by a team comprised of leading thinkers in big data analytics**

**22nd European Symposium on Research in Computer Security, Oslo, Norway, September 11-15, 2017, Proceedings, Part II  
Pattern Recognition and Computer Vision**

**Digital Content Creation**

**Computer Vision - ACCV 2018**

**Network-Centric Collaboration and Supporting Frameworks  
Diversifying Implementation in Curriculum, Instruction, and  
Professional Development**

**13th European Conference, Zurich, Switzerland, September  
6-12, 2014, Proceedings, Part II**

*Web Technologies and Applications 17th Asia-Pacific Web Conference, APWeb 2015, Guangzhou, China, September 18-20, 2015, Proceedings Springer*

*The multi-volume set LNAI 12975 until 12979 constitutes the refereed proceedings of the European Conference on Machine Learning and Knowledge Discovery in Databases, ECML PKDD 2021, which was held during September 13-17, 2021. The conference was originally planned to take place in Bilbao, Spain, but changed to an online event due to the COVID-19 pandemic. The 210 full papers presented in these proceedings were carefully reviewed and selected from a total of 869 submissions. The volumes are organized in topical sections as follows: Research Track: Part I: Online learning; reinforcement learning; time series, streams, and sequence models; transfer and multi-task learning; semi-supervised and few-shot learning; learning algorithms and applications. Part II: Generative models; algorithms and learning theory; graphs and networks; interpretation, explainability, transparency, safety. Part III: Generative models; search and optimization; supervised learning; text mining and natural language processing; image processing, computer vision and visual analytics. Applied Data Science Track: Part IV: Anomaly detection and malware; spatio-*

temporal data; e-commerce and finance; healthcare and medical applications (including Covid); mobility and transportation. Part V: Automating machine learning, optimization, and feature engineering; machine learning based simulations and knowledge discovery; recommender systems and behavior modeling; natural language processing; remote sensing, image and video processing; social media. The six volume set LNCS 11361-11366 constitutes the proceedings of the 14th Asian Conference on Computer Vision, ACCV 2018, held in Perth, Australia, in December 2018. The total of 274 contributions was carefully reviewed and selected from 979 submissions during two rounds of reviewing and improvement. The papers focus on motion and tracking, segmentation and grouping, image-based modeling, deep learning, object recognition object recognition, object detection and categorization, vision and language, video analysis and event recognition, face and gesture analysis, statistical methods and learning, performance evaluation, medical image analysis, document analysis, optimization methods, RGBD and depth camera processing, robotic vision, applications of computer vision.

Low-rank matrix factorizations have become increasingly popular to project high dimensional data into latent spaces with small dimensions in order to obtain better understandings of the data and thus more accurate predictions. In particular, they have been widely applied to important applications such as collaborative filtering and social network analysis. In this thesis, I investigate the applications and extensions of the ideas of the low-rank matrix factorization to solve several practically important problems arise from collaborative filtering and social network analysis. A key challenge in recommendation system research is how to effectively profile new users, a problem generally known as *cold-start* recommendation. In the first part of this work, we extend the low-rank matrix factorization by allowing the latent factors to have more complex structures --- decision trees to solve the problem of cold-start recommendations. In particular, we present *functional matrix factorization* (fMF), a novel cold-start recommendation method that solves the problem of adaptive interview construction based on low-rank matrix factorizations. The second part of this work considers the efficiency problem of making recommendations in the context of large user and item spaces. Specifically, we address the problem through learning binary codes for collaborative filtering, which can be viewed as restricting the latent factors in low-rank matrix factorizations to be binary vectors that represent the binary codes for both users and items. In the third part of this work, we investigate the applications of low-rank matrix factorizations in the context of social network analysis. Specifically, we propose a convex optimization approach to discover the hidden network of social influence with low-rank and sparse structure by modeling the recurrent events at different individuals as multi-dimensional Hawkes processes, emphasizing the mutual-excitation nature of the dynamics of event occurrences. The proposed framework combines the estimation of mutually exciting process and the low-rank matrix factorization in a principled manner. In the fourth part of this work, we estimate the triggering kernels for the Hawkes process. In particular, we focus on estimating the triggering kernels from an infinite dimensional functional space with the Euler Lagrange equation, which can be viewed as applying the idea of low-rank factorizations in the functional space.

24th International Conference, ICONIP 2017, Guangzhou, China, November 14-18,

2017, Proceedings, Part I  
Web Technologies and Applications

Designing for Change in Networked Learning Environments  
Collaborative Software Engineering  
25th International Conference, ICONIP 2018, Siem Reap, Cambodia, December 13-16,  
2018, Proceedings, Part I  
European Conference, ECML PKDD 2021, Bilbao, Spain, September 13-17, 2021,  
Proceedings, Part II

**CSCL has in the past 15 years (and often in conjunction with Springer) grown into a thriving and active community. Yet, lacking is a comprehensive CSCL handbook that displays the range of research being done in this area. This handbook will provide an overview of the diverse aspects of the field, allowing newcomers to develop a sense of the entirety of CSCL research and for existing community members to become more deeply aware of work outside their direct area. The handbook will also serve as a ready reference for foundational concepts, methods, and approaches in the field. The chapters are written in such a way that each of them can be used in a stand-alone fashion while also serving as introductory readings in relevant study courses or in teacher education. While some CSCL-relevant topics are addressed in the International Handbook of the Learning Sciences and the International Handbook of Collaborative Learning, these books do not aim to present an integrated and comprehensive view of CSCL. The International Handbook of Computer-Supported Collaborative Learning covers all relevant topics in CSCL, particularly recent developments in the field, such as the rise of computational approaches and learning analytics.**

**This two-volume set LNCS 12239-12240 constitutes the refereed proceedings of the 6th International Conference on Artificial Intelligence and Security, ICAIS 2020, which was held in Hohhot, China, in July 2020. The conference was formerly called "International Conference on Cloud Computing and Security" with the acronym ICCCS. The total of 142 full papers presented in this two-volume proceedings was carefully reviewed and selected from 1064 submissions. The papers were organized in topical sections as follows: Part I: Artificial intelligence and internet of things. Part II: Internet of things, information security, big data and cloud computing, and information processing.**

**Collaborative Networks is a fast developing area, as shown by the already large number of diverse real-world implemented cases and the dynamism of its related involved research community. Being recognized as the most focused scientific and technical conference on Collaborative Networks, PRO-VE continues to offer the opportunity for presentation and discussion of both the latest research developments as well as the practical application case studies.**

**The six volume set LNCS 10634, LNCS 10635, LNCS 10636, LNCS 10637, LNCS 10638, and LNCS 10639 constitutes the proceedings of the 24rd International Conference on Neural Information Processing, ICONIP**

**2017, held in Guangzhou, China, in November 2017. The 563 full papers presented were carefully reviewed and selected from 856 submissions. The 6 volumes are organized in topical sections on Machine Learning, Reinforcement Learning, Big Data Analysis, Deep Learning, Brain-Computer Interface, Computational Finance, Computer Vision, Neurodynamics, Sensory Perception and Decision Making, Computational Intelligence, Neural Data Analysis, Biomedical Engineering, Emotion and Bayesian Networks, Data Mining, Time-Series Analysis, Social Networks, Bioinformatics, Information Security and Social Cognition, Robotics and Control, Pattern Recognition, Neuromorphic Hardware and Speech Processing.**

**Proceedings of the Estonian Academy of Sciences, Engineering 6th International Conference, ICAIS 2020, Hohhot, China, July 17–20, 2020, Proceedings, Part II**

**17th Asia-Pacific Web Conference, APWeb 2015, Guangzhou, China, September 18-20, 2015, Proceedings**

**Artificial Intelligence and Security**

**Neural Information Processing**

**Advances in Artificial Intelligence**

**Computer Vision – ACCV 2016**

The Practical, Foundational Technical Introduction to the World's #1 Cloud Platform Includes access to several hours of online training video: Mark Wilkins' expert training video library guides you through setting up core services and prepares you to deploy your own apps and resources. Learning Amazon Web Services (AWS) is the perfect foundational resource for all administrators, developers, project managers, and other IT professionals who want to plan and deploy AWS services and/or earn AWS certification. Top cloud trainer and evangelist Mark Wilkins teaches best practices that align with Amazon's Well-Architected Framework, introduces key concepts in the context of a running case study, carefully explains how core AWS services operate and integrate, and offers extensively tested tips for maximizing flexibility, security, and value. Companion online videos guide you step-by-step through setting AWS compute, storage, networking, scale, security, automation, and more. Balance cost, compliance, and latency in your service designs Choose the right networking options for your virtual private cloud (VPC) Build, host, launch, manage, and budget for EC2 compute services Plan for scale and resiliency, and make informed decisions about AWS storage Enforce strict security, and automate to improve operational efficiency This book with companion training videos is a valuable learning tool for anyone seeking to demonstrate expertise through formal certification. WEB EDITION: All

buyers of the book or ebook can register your book for access to a free online Web Edition of this title, which included videos embedded within the text, plus updates as they become available.

Organizations are showing a remarkable interest in realizing knowledge management technologies and processes to adopt knowledge management as part of their overall strategy. However, even with the current advancement in technology, few organizations are entirely capable of developing critical organizational knowledge to achieve improved performance. *Technological Innovations in Knowledge Management and Decision Support* is a vital research publication that examines different knowledge management areas for organizational competitiveness, survival, and effectiveness. It also provides cutting-edge research techniques in related optimization methods and other automated techniques in real-world processes. Featuring a broad range of topics such as enterprise resource planning, neural networks, and image segmentation, this book is a critical resource for managers, IT specialists, healthcare and social sciences professionals, engineers, academicians, and researchers seeking research on effective knowledge management systems.

Mass collaboration on Internet platforms like Wikipedia and Scratch, along with wider movements like the maker space and citizen science, are poised to have profound impacts on learning and education. Bringing together researchers from such fields as: psychology, education, information technology, and economics, the book offers a comprehensive overview of mass collaboration, novel, cross disciplinary, theoretical accounts, and methodological approaches for studying and improving these massively collaborative enterprises. The book is aimed to serve as an information source for researchers, educators, and designers of platforms and learning environments.

This two-volume set constitutes the refereed proceedings of the 16th International Conference on Collaborative Computing: Networking, Applications, and Worksharing, CollaborateCom 2020, held in Shanghai, China, in October 2020. The 61 full papers and 16 short papers presented were carefully reviewed and selected from 211 submissions. The papers reflect the conference sessions as follows:  
Collaborative Applications for Network and E-Commerce;

Optimization for Collaborate System; Cloud and Edge Computing; Artificial Intelligence; AI Application and Optimization; Classification and Recommendation; Internet of Things; Collaborative Robotics and Autonomous Systems; Smart Transportation.

Cooperative Design, Visualization, and Engineering  
Proceedings of the 21th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining

Third Chinese Conference, PRCV 2020, Nanjing, China, October 16-18, 2020, Proceedings, Part II

Web Data Mining and the Development of Knowledge-Based Decision Support Systems

F# for Machine Learning Essentials

A Hands-On Guide to the Fundamentals of AWS Cloud

MultiMedia Modeling

The five-volume set LNCS 10111-10115 constitutes the thoroughly refereed post-conference proceedings of the 13th Asian Conference on Computer Vision, ACCV 2016, held in Taipei, Taiwan, in November 2016. The total of 143 contributions presented in these volumes was carefully reviewed and selected from 479 submissions. The papers are organized in topical sections on Segmentation and Classification; Segmentation and Semantic Segmentation; Dictionary Learning, Retrieval, and Clustering; Deep Learning; People Tracking and Action Recognition; People and Actions; Faces; Computational Photography; Face and Gestures; Image Alignment; Computational Photography and Image Processing; Language and Video; 3D Computer Vision; Image Attributes, Language, and Recognition; Video Understanding; and 3D Vision.

This book constitutes the refereed proceedings of the 14th Conference of the Spanish Association for Artificial Intelligence, CAEPIA 2009, held in La Laguna, Canary Islands, Spain, in November 2011. The 50 revised full papers presented were carefully selected from 149 submissions. The papers are organized in topical sections on agent-based and multi-agent systems; machine learning; knowledge representation, logic, search and planning; multidisciplinary topics and applications; vision and robotics; soft computing; Web intelligence and information retrieval.

Collaboration among individuals – from users to developers – is central to modern software engineering. It takes many forms: joint activity to solve common problems, negotiation to resolve conflicts, creation of shared definitions, and both social and technical perspectives impacting all software development activity.

The difficulties of collaboration are also well documented. The grand challenge is not only to ensure that developers in a team deliver effectively as individuals, but that the whole team delivers more than just the sum of its parts. The editors of this book have assembled an impressive selection of authors, who have contributed to an authoritative body of work tackling a wide range of issues in the

field of collaborative software engineering. The resulting volume is divided into four parts, preceded by a general editorial chapter providing a more detailed review of the domain of collaborative software engineering. Part 1 is on "Characterizing Collaborative Software Engineering", Part 2 examines various "Tools and Techniques", Part 3 addresses organizational issues, and finally Part 4 contains four examples of "Emerging Issues in Collaborative Software Engineering". As a result, this book delivers a comprehensive state-of-the-art overview and empirical results for researchers in academia and industry in areas like software process management, empirical software engineering, and global software development. Practitioners working in this area will also appreciate the detailed descriptions and reports which can often be used as guidelines to improve their daily work.

The formative role played by digital communication in knowledge-based societies is widely acknowledged. Not least, young people's rapid adoption of a variety of social software applications serves to challenge existing forms of communication for learning, since these innovations allow and assume users' own creation, sharing, and editing of content. This volume presents advanced research on digital content creation, its socio-cultural contexts, and educational consequences. In the midst of ubiquitous commercial hype about digital innovation, as well as policy concerns, the volume offers the sobering perspectives of theory-driven empirical research, in order to examine the complexities, highlight the nuances, and illuminate the pedagogical affordances of creative digital contents. This book brings together the work of an international group of scholars from a range of disciplines including media and ICT studies, education, psychology, anthropology, sociology, and cultural studies.

Big Data Analytics for Sensor-Network Collected Intelligence

16th EAI International Conference, CollaborateCom 2020, Shanghai, China, October 16–18, 2020, Proceedings, Part I

Computer Vision -- ACCV 2014

Artificial Intelligence Trends for Data Analytics Using Machine Learning and Deep Learning Approaches

International Handbook of Computer-Supported Collaborative Learning

Computer Security – ESORICS 2017

Computer Vision -- ECCV 2014

**Artificial Intelligence (AI), when incorporated with machine learning and deep learning algorithms, has a wide variety of applications today. This book focuses on the implementation of various elementary and advanced approaches in AI that can be used in various domains to solve real-time decision-making problems. The book focuses on concepts and techniques used to run tasks in an automated manner. It discusses computational intelligence in the detection and diagnosis of clinical and biomedical images, covers the automation of a system through machine learning and deep learning approaches, presents data analytics and mining for decision-support applications, and includes case-based reasoning, natural language processing, computer vision, and AI approaches in real-time applications. Academic scientists, researchers, and students in the various domains of computer science engineering, electronics and communication engineering,**

and information technology, as well as industrial engineers, biomedical engineers, and management, will find this book useful. By the end of this book, you will understand the fundamentals of AI. Various case studies will develop your adaptive thinking to solve real-time AI problems. Features Includes AI-based decision-making approaches Discusses computational intelligence in the detection and diagnosis of clinical and biomedical images Covers automation of systems through machine learning and deep learning approaches and its implications to the real world Presents data analytics and mining for decision-support applications Offers case-based reasoning

This book constitutes the refereed proceedings of the 13th International Conference on Cooperative Design, Visualization, and Engineering, CDVE2016, held in Sydney, NSW, Australia, in October 2016. The 42 full papers and 9 short papers presented were carefully reviewed and selected from 89 submissions. The papers cover a broad range of topics in the field of cooperative visualization, visual analytics, cooperative engineering, and cooperative design and applications. The Computer Supported Collaborative Learning (CSCL) conference has become an internationally-recognized forum for the exchange of research findings related to learning in the context of collaborative activity and the exploration of how such learning might be augmented through technology. This text is the proceedings from CSCL 2005 held in Taipei, Taiwan. This conference marked the 10th anniversary of the first CSCL Conference held at Indiana University in 1995. Subsequent meetings have been held at the University of Toronto, Stanford University, University of Maastricht (Netherlands), University of Colorado at Boulder, and the University of Bergen (Norway). Just as the first CSCL conference was instrumental in shaping the trajectory of the field in its first decade, the conference in Taipei will play an important role in consolidating an increasingly international and interdisciplinary community and defining the direction of the field for the next 10 years. This volume, and the papers from which it is comprised, will be an important resource for those active in this area of research and for others interested in fostering learning in settings of collaboration.

The three-volume set LNCS 12305, 12306, and 12307 constitutes the refereed proceedings of the Third Chinese Conference on Pattern Recognition and Computer Vision, PRCV 2020, held virtually in Nanjing, China, in October 2020. The 158 full papers presented were carefully reviewed and selected from 402 submissions. The papers have been organized in the following topical sections: Part I: Computer Vision and Application, Part II: Pattern Recognition and Application, Part III: Machine Learning.

**Computer Vision – ECCV 2016**

**Connectivity and Knowledge Management in Virtual Organizations: Networking and Developing Interactive Communications**

**Collaborative Computing: Networking, Applications and Worksharing**

**24th International Conference, MMM 2018, Bangkok, Thailand, February 5-7, 2018, Proceedings, Part II**

**15th Pacific Rim International Conference on Artificial Intelligence, Nanjing, China, August 28–31, 2018, Proceedings, Part I**

**IFIP TC 5 WG 5.5, Seventh IFIP Working Conference on Virtual Enterprises, 25-27 September 2006, Helsinki, Finland**

**Networking and Developing Interactive Communications**

Websites are a central part of today's business world; however, with the vast amount of information that constantly changes and the frequency of required updates, this can come at a high cost to modern businesses. Web Data Mining and the Development of Knowledge-Based Decision Support Systems is a key reference source on decision support systems in view of

end user accessibility and identifies methods for extraction and analysis of useful information from web documents. Featuring extensive coverage across a range of relevant perspectives and topics, such as semantic web, machine learning, and expert systems, this book is ideally designed for web developers, internet users, online application developers, researchers, and faculty.

With the recent advances in remote sensing technologies for Earth observation, many different remote sensors are collecting data with distinctive properties. The obtained data are so large and complex that analyzing them manually becomes impractical or even impossible. Therefore, understanding remote sensing images effectively, in connection with physics, has been the primary concern of the remote sensing research community in recent years. For this purpose, machine learning is thought to be a promising technique because it can make the system learn to improve itself. With this distinctive characteristic, the algorithms will be more adaptive, automatic, and intelligent. This book introduces some of the most challenging issues of machine learning in the field of remote sensing, and the latest advanced technologies developed for different applications. It integrates with multi-source/multi-temporal/multi-scale data, and mainly focuses on learning to understand remote sensing images. Particularly, it presents many more effective techniques based on the popular concepts of deep learning and big data to reach new heights of data understanding. Through reporting recent advances in the machine learning approaches towards analyzing and understanding remote sensing images, this book can help readers become more familiar with knowledge frontier and foster an increased interest in this field.

The two-volume set, LNCS 10492 and LNCS 10493 constitutes the refereed proceedings of the 22nd European Symposium on Research in Computer Security, ESORICS 2017, held in Oslo, Norway, in September 2017. The 54 revised full papers presented were carefully reviewed and selected from 338 submissions. The papers address issues such as data protection; security protocols; systems; web and network security; privacy; threat modeling and detection; information flow; and security in emerging applications such as cryptocurrencies, the Internet of Things and automotive. The eight-volume set comprising LNCS volumes 9905-9912

constitutes the refereed proceedings of the 14th European Conference on Computer Vision, ECCV 2016, held in Amsterdam, The Netherlands, in October 2016. The 415 revised papers presented were carefully reviewed and selected from 1480 submissions. The papers cover all aspects of computer vision and pattern recognition such as 3D computer vision; computational photography, sensing and display; face and gesture; low-level vision and image processing; motion and tracking; optimization methods; physicsbased vision, photometry and shape-from-X; recognition: detection, categorization, indexing, matching; segmentation, grouping and shape representation; statistical methods and learning; video: events, activities and surveillance; applications. They are organized in topical sections on detection, recognition and retrieval; scene understanding; optimization; image and video processing; learning; action activity and tracking; 3D; and 9 poster sessions.

13th Asian Conference on Computer Vision, Taipei, Taiwan, November 20-24, 2016, Revised Selected Papers, Part III  
Learning Technologies and User Interaction  
Technological Innovations in Knowledge Management and Decision Support

Extending Low-rank Matrix Factorizations for Emerging Applications

Learning to Understand Remote Sensing Images  
Perceptions, Practices, & Perspectives

27th International Conference, ICONIP 2020, Bangkok, Thailand, November 18-22, 2020, Proceedings, Part IV

The European Conference on Technology-Enhanced Learning (EC-TEL 2008) was the third event of a series that started in 2006. The two first editions were organized by Pro-Learn (<http://www.prolearn-project.org/>), a European Network of Excellence. In 2008, several members of Kaleidoscope, the other European Network of Excellence (<http://www.noie-kaleidoscope.org/pub/>), joined as co-chair, committee members, reviewers and authors. These two networks are no longer funded, but our aim was to turn EC-TEL into a sustainable series of high-quality events and thereby to contribute to the scientific landscape of technology-enhanced learning. A new network, named STELLAR, will be launched in 2009, with members from both existing networks as well as new members and will support the future editions of this conference. The scope of EC-TEL 2008 covered the different fields of learning technologies: e-ducation, psychology, computer science. The contributions in this volume address the - sign of innovative environments, computational models and architectures, results of empirical studies on socio-cognitive processes, field studies regarding the use of technologies in context, collaborative processes, pedagogical scenarios, reusable learning objects and emerging objects, groups and communities, learning networks,

interaction analysis, metadata, personalization, collaboration scripts, learning adaptation, collaborative environments, resources, tangible tools, as well as learning management systems.

The two-volume set LNCS 10704 and 10705 constitutes the thoroughly refereed proceedings of the 24th International Conference on Multimedia Modeling, MMM 2018, held in Bangkok, Thailand, in February 2018. Of the 185 full papers submitted, 46 were selected for oral presentation and 28 for poster presentation; in addition, 5 papers were accepted for Multimedia Analytics: Perspectives, Techniques, and Applications, 12 extended abstracts for demonstrations, and 9 accepted papers for Video Browser Showdown 2018. All papers presented were carefully reviewed and selected from 185 submissions.

"This book analyzes different types of virtual communities, proposing Knowledge Management as a solid theoretical ground for approaching their management"--Provided by publisher.

The seven-volume set comprising LNCS volumes 8689-8695 constitutes the refereed proceedings of the 13th European Conference on Computer Vision, ECCV 2014, held in Zurich, Switzerland, in September 2014. The 363 revised papers presented were carefully reviewed and selected from 1444 submissions. The papers are organized in topical sections on tracking and activity recognition; recognition; learning and inference; structure from motion and feature matching; computational photography and low-level vision; vision; segmentation and saliency; context and 3D scenes; motion and 3D scene analysis; and poster sessions.

Mass Collaboration and Education

13th International Conference, CDVE 2016, Sydney, NSW, Australia, October 24-27, 2016, Proceedings

The Next 10 Years!

Machine Learning and Knowledge Discovery in Databases. Research Track

Advances in Multimedia Information Processing - PCM 2018

Computer Supported Collaborative Learning 2005

Third European Conference on Technology Enhanced Learning, EC-TEL 2008, Maastricht, The Netherlands, September 16-19, 2008, Proceedings

**The seven-volume set of LNCS 11301-11307, constitutes the proceedings of the 25th International Conference on Neural Information Processing, ICONIP 2018, held in Siem Reap, Cambodia, in December 2018. The 401 full papers presented were carefully reviewed and selected from 575 submissions. The papers address the emerging topics of theoretical research, empirical studies, and applications of neural information processing techniques across different domains. The first volume, LNCS 11301, is organized in topical sections on deep neural networks, convolutional neural networks, recurrent neural networks, and spiking neural networks.**

**The two-volume set CCIS 1332 and 1333 constitutes thoroughly refereed contributions presented at the 27th International Conference on Neural Information Processing, ICONIP 2020, held in Bangkok, Thailand, in November 2020.\* For ICONIP 2020 a total of 378 papers was carefully reviewed and selected for publication out of 618 submissions. The 191**

**papers included in this volume set were organized in topical sections as follows: data mining; healthcare analytics-improving healthcare outcomes using big data analytics; human activity recognition; image processing and computer vision; natural language processing; recommender systems; the 13th international workshop on artificial intelligence and cybersecurity; computational intelligence; machine learning; neural network models; robotics and control; and time series analysis. \* The conference was held virtually due to the COVID-19 pandemic.**

**The five-volume set LNCS 9003--9007 constitutes the thoroughly refereed post-conference proceedings of the 12th Asian Conference on Computer Vision, ACCV 2014, held in Singapore, Singapore, in November 2014. The total of 227 contributions presented in these volumes was carefully reviewed and selected from 814 submissions. The papers are organized in topical sections on recognition; 3D vision; low-level vision and features; segmentation; face and gesture, tracking; stereo, physics, video and events; and poster sessions 1-3.**

**Get up and running with machine learning with F# in a fun and functional way About This Book Design algorithms in F# to tackle complex computing problems Be a proficient F# data scientist using this simple-to-follow guide Solve real-world, data-related problems with robust statistical models, built for a range of datasets Who This Book Is For If you are a C# or an F# developer who now wants to explore the area of machine learning, then this book is for you. Familiarity with theoretical concepts and notation of mathematics and statistics would be an added advantage. What You Will Learn Use F# to find patterns through raw data Build a set of classification systems using Accord.NET, Weka, and F# Run machine learning jobs on the Cloud with MBrace Perform mathematical operations on matrices and vectors using Math.NET Use a recommender system for your own problem domain Identify tourist spots across the globe using inputs from the user with decision tree algorithms In Detail The F# functional programming language enables developers to write simple code to solve complex problems. With F#, developers create consistent and predictable programs that are easier to test and reuse, simpler to parallelize, and are less prone to bugs. If you want to learn how to use F# to build machine learning systems, then this is the book you want. Starting with an introduction to the several categories on machine learning, you will quickly learn to implement time-tested, supervised learning algorithms. You will gradually move on to solving problems on predicting housing pricing using Regression Analysis. You will then learn to use Accord.NET to implement SVM techniques and clustering. You will also learn to build a recommender system for your e-commerce site from scratch. Finally, you will dive into advanced topics such as implementing neural network algorithms while performing sentiment analysis on your data. Style and approach This book is a fast-paced tutorial guide that uses hands-on examples to explain real-world applications of machine learning. Using practical examples, the book will explore several machine learning techniques and also describe how you can use F# to build**

**machine learning systems.**

**Learning Amazon Web Services (AWS)**

**14th European Conference, Amsterdam, The Netherlands, October 11-14, 2016, Proceedings, Part IV**

**19th Pacific-Rim Conference on Multimedia, Hefei, China, September 21-22, 2018, Proceedings, Part I**

**14th Conference of the Spanish Association for Artificial Intelligence, CAEPIA 2011, La Laguna, Spain, November 7-11, 2011. Proceedings Understanding-Oriented Multimedia Content Analysis**

**Times of Convergence. Technologies Across Learning Contexts**

**PRICAI 2018: Trends in Artificial Intelligence**

This two-volume set, LNAI 11012 and 11013, constitutes the thoroughly refereed proceedings of the 15th Pacific Rim Conference on Artificial Intelligence, PRICAI 2018, held in Nanjing, China, in August 2018. The 82 full papers and 58 short papers presented in these volumes were carefully reviewed and selected from 382 submissions. PRICAI covers a wide range of topics such as AI theories, technologies and their applications in the areas of social and economic importance for countries in the Pacific Rim.

This book constitutes the refereed proceedings of the 17th Asia-Pacific Conference APWeb 2015 held in Guangzhou, China, in September 2015. The 67 full papers and presented together with 3 industrial track papers and 7 demonstration track papers were carefully reviewed and selected from 146 submissions. The papers cover a wide spectrum of Web-related data management problems, and provide a thorough view on the rapid advances of technical solutions.

This volume is of interest to researchers and students, designers, educators, and industrial trainers in such disciplines as education, cognitive, social and educational psychology, didactics, computer science, linguistics and semiotics, speech communication, anthropology, sociology and design. It includes discussions on knowledge building, designing and analyzing group interaction, design of collaborative multimedia and 3D environments, computational modeling and analysis, and software agents.

**12th Asian Conference on Computer Vision, Singapore, Singapore, November 1-5, 2014, Revised Selected Papers, Part V**

**14th Asian Conference on Computer Vision, Perth, Australia, December 2–6, 2018, Revised Selected Papers, Part IV**