

ACM BOOKS

Published by ACM in conjunction with Morgan & Claypool Publishers, *ACM Books: Collection I* is the first in a new series of high quality, advanced level eBook collections for the computer science community.

Covering All Of Computing

ACM and Morgan & Claypool Publishers present ACM Books: Collection I, the first in an all-new series of educational, research and reference works for the computing community. Inspired by the need for high-quality computer science publishing at the graduate, faculty and professional levels, ACM Books is affordable, current, and comprehensive in scope. ACM Books collections are available under an ownership model with archival rights included. We invite you to learn more about this exciting new program.

For more information, please visit books.acm.org



Subjects

Algorithms & Complexity **Bioinformatics** Cloud Computing **Computer Graphics** Data Management History of Computing Human-Centered Computing Information Retrieval & Digital Libraries Machine Learning & Data Mining Mobile Computing Multimedia Systems Networking & Communications Parallel Computing Programming Languages Security & Privacy Social Computing Software Engineering Spatial & Geographic Information Systems Web Technology & Science with additional subjects to follow

OUR EDITORIAL BOARD



M. Tamer Özsu University of Waterloo Editor In Chief



Bashar Nuseibeh The Open University, UK Software Engineering



Shih-Fu Chang Columbia University Multimedia Systems



Ramesh Jain University of California, Irvine Social Computing



Digital Libraries Y. Annie Liu Stony Brook University Programming Languages



Michel **Beaudouin-Lafon** Université Paris-Sud Human-Centered Computing

Thomas J. Misa





Mohamed F. Mokbel University of Minnesota Spatial & Geographic Information Systems

University of Minnesota

History of Computing



Gerhard Weikum Max Planck Institute for Informatics Data Management



Limsoon Wong National University of Singapore **Bioinformatics**



Ricardo Baeza-Yates Universitat Pompeu Fabra, University of Chile Web Technology & Science



John C. Hart University of Illinois Computer Graphics



Divyakant Agrawal University of California,

Santa Barbara Cloud Computing



Bernhard Schölkopf Max Planck Institute for Intelligent Systems Machine Learning & Data Mining



Ahmad-Reza Sadeghi Technische Universität

Darmstadt, Germany Security & Privacy



Pankaj Agrawal Duke University Algorithms & Complexity



Tristan Henderson University of St Andrews Networking and Communications

ACM Books fills a unique space in the publishing domain, and features books from across the entire spectrum of computer science subject matter. The series initially focuses on four kinds of books: graduate level textbooks, deep research monographs that provide an overview of established and emerging fields, practitioner level professional books, and books devoted to the history and social impact of computing.

Readers can trust ACM Books to reflect ACM's ongoing commitment to:

- High-quality research
- Affordable pricing
- Long-term preservation of content
- Digital-first publication





COLLECTION I TITLES

Ada's Legacy: Cultures of Computing from the Victorian to the Digital Age

Andrew L. Russell and Robin Hammerman ISBN: 978-1-97000-149-5 DOI: 10.1145/2809523

An Architecture for Fast and General Data Processing on Large Clusters

By Matei Zaharia ISBN: 978-1-97000-157-0 DOI: 10.1145/2886107

Candidate Multilinear Maps By Sanjam Gara

ISBN: 978-1-62705-549-9 DOI: 10.1145/2714451

Communities of Computing: Computer Science and Society in the ACM

By Thomas J. Misa ISBN: 978-1-97000-187-7 DOI: 10.1145/2973856

Computational Prediction of Protein Complexes from Protein Interaction Networks

By Sriganesh Srihari, Chern Han Yong, and Limsoon Wong ISBN: 978-1-97000-155-6 DOI: 10.1145/3064650

The Continuing Arms Race: Code-Reuse Attacks and Defenses

By Per Larsen and Ahmad-Reza Sadeghi ISBN: 978-1-97000-183-9 DOI: 10.1145/3129743

Declarative Logic Programming: Theory, Systems, and Applications

By Michael Kifer and Yanhong Liu ISBN: 978-1-97000-199-0 DOI: 10.1145/3191315



Edmund Berkeley and the Social Responsibility of Computer Professionals

By Bernadette Longo ISBN: 978-1-97000-139-6 DOI: 10.1145/2787754

Embracing Interference In Wireless Systems

By Shyamnath Gollakota ISBN: 978-1-62705-474-4 DOI: 10.1145/2611390

A Framework For Scientific Discovery Through Video Games By Seth Cooper ISBN: 978-1-62705-504-8 DOI: 10.1145/2625848

The Handbook of Multimodal-Multisensor Interfaces, Vol. 1, 2 and 3

By Sharon Oviatt, Phillip R. Cohen, Björn Schuller, Daniel Sonntag, Gerasimos Potamianos and Antonio Krüger Volume 1 ISBN: 978-1-97000-167-9 DOI: 10.1145/3015783 Volume 2 ISBN: 978-1-97000-171-6 DOI: 10.1145/3107990 Volume 3 ISBN: 978-1-97000-173-0 DOI forthcoming

Hardness of Approximation Between P and NP

By Aviad Rubinstein ISBN: 978-1-94748-720-8 DOI forthcoming

Michael R. Stonebraker: 2014 A.M. Turing Award Winner

By Michael Brodie ISBN: 978-1-94748-716-1 DOI forthcoming

Reactive Internet Programming: State Chart XML in Action

By Franck Barbier ISBN: 978-1-97000-177-8 DOI: 10.1145/2872585

Frontiers of Multimedia Research

By Shih-Fu Chang ISBN: 978-1-97000-107-5 DOI: 10.1145/3122865

Shared-Memory Parallelism Can Be Simple, Fast, and Scalable By Julian Shun ISBN: 978-1-97000-191-4

ISBN: 978-1-97000-191-4 DOI: 10.1145/3018787

Smarter Than Their Machines: Oral Histories of Pioneers In Interactive Computing

By John Cullinane ISBN: 978-1-62705-553-6 DOI: 10.1145/2663015

Software Engineering Essentialized

By Ivar Jacobson, Harold "Bud" Lawson, Pan-Wei Ng, Paul E. McMahon, Michael Goedicke ISBN: 978-1-94748-724-6 DOI forthcoming

The Sparse Fourier Transform: Theory & Practice

By Haitham Hassanieh ISBN: 978-1-94748-707-9 DOI: 10.1145/3166186

Text Data Management and Analysis: A Practical Introduction to Information Retrieval and Text Mining

By ChengXiang Zhai and Sean Massung ISBN: 978-1-97000-117-4 DOI: 10.1145/2915031

Trust Extension as a Mechanism for Secure Code Execution on Commodity Computers

By Bryan Jeffery Parno ISBN: 978-1-62705-477-5 DOI: 10.1145/2611399

The VR Book: Human-Centered Design for Virtual Reality

By Jason Jerald ISBN: 978-1-97000-112-9 DOI: 10.1145/2792790

Verified Functional Programming In Agda By Aaron Stump

ISBN: 978-1-97000-127-3 DOI: 10.1145/2841316

PURCHASING INFORMATION

ACM Books pricing is based on an ownership model that provides archival rights for customers purchasing the entire collection of ACM Books, with the ability to locally host individual titles for internal use at the discretion of the purchasing institution.

The ACM Books Institutional Access Model Provides unlimited, site-wide access for all authorized users, no DRM restrictions, and fully integrated functionality within the ACM Digital Library platform.

ACM Books pricing is provided in US Dollars and is based on several factors:

- Institution Type: Academic, Corporate
 or Government
- ACM Digital Library Tier (for Academic)
- Single or multi-site access
- Consortium discount (if applicable)
- Pre-publication discount (if applicable)

Academic Institutions

Tier 1 = \$1,500 Tier 2 = \$2,500 Tier 3 = \$4,000

* To determine which tier your institution is classified as by ACM, please contact ACM at acmbooks-info@acm.org

Government Institutions

Government List Price = \$2,500 per site with discounts available for multi-site purchases

Corporations

- Tier 1 = \$2,500 per site with discounts available for multi-site purchases
- Tier 2 = \$3,500 per site with discounts available for multi-site purchases
- Tier 3 = \$4,500 per site with discounts available for multi-site purchases
- * Corporate tiering is based on annual revenues for the purchasing corporation. Tier 1 is for all corporations with \$0-\$99m in annual revenues. Tier 2 is for all corporations with \$100m-\$500m in annual revenues. Tier 3 is for all corporations with over \$500m in annual revenues.



For more information about ACM Books, please visit **http://books.acm.org** or contact ACM at ACMbooks-Info@acm.org, or call +1-212-626-0658.



Association for Computing Machinery

2 Penn Plaza, Suite 701 New York, NY 10121-0701, USA Phone: +1-212-626-0658 Email: acmbooks-info@acm.org

Morgan & Claypool Publishers

1210 Fifth Avenue, Suite 250 San Rafael, CA 94901, USA Phone: +1-415-462-0004 Email: info@morganclaypool.com



Association for Computing Machinery

http://books.acm.org



Association for Computing Machinery

Advancing Computing as a Science & Profession

COLLECTION II TITLES IN DEVELOPMENT

Algorithms and Methods in Structural Bioinformatics Nurit Haspel

Concurrency: The Works of Leslie Lamport *Dahlia Malkhi*

Conversational UX Design: A Methodology for Practitioners *Robert Moore and Raphael Arar*

Data Cleaning Ihab Ilyas and Xu Chu

Database Replication Bettina Kemme, Ricardo Jimenez-Peris, and Marta Patino-Martinez

Democratizing Cryptography: The Work of Whitfield Diffie and Martin Hellman Rebecca Slayton

Digital Knowledge Ecosystems: Harnessing Social Knowledge for Building Smart Communities Athula Ginige

The Emergence of Internetworking, 1968–1988 James Pelkey and Andrew L. Russell

Empirical Software Engineering *Dag Sjøberg*

Event Mining: Concepts and Techniques *Laleh Jalali and Ramesh Jain* Foundations of Computation and Machine Learning: The Work of Leslie Valiant Rocco Anthony Servedio

Geospatial Data Science: An Approach Based on Semantic Technologies and Linked Data Manolis Koubarakis, Konstantina

Bereta, Charalampos Nikolaou and George Stamoulis

Heterogeneous Computing: Hardware & Software Perspectives Mohamed Zahran

Introduction to Computational Advertising Ricardo Baeza-Yates, Prabakhar Krishnamurthy, and Jian Yang

Introduction to Digital Signal Processing and Machine Learning for Interactive Systems Developers Parisa Eslambolchilar, Andreas Komninos, Mark Dunlop

Linking the World's Information: Tim Berners-Lee's Invention of the World Wide Web Oshani Seneviratne and James Hendler

Logic and Computational Complexity: Works of Stephen A. Cook Bruce Kapron

Pointer Analysis: Theory and Practice *Uday P. Khedker and Pritam M. Gharat* **Principles of Graph Data Management and Analytics** *Amol Deshpande and Amarnath Gupta*

Probabilistic and Causal Inference: The Works of Judea Pearl Rina Dechter, Hector Geffner and Joseph Halpern

Prophets of Computing: Visions of Society Transformed by Computing Dick van Lente

Providing Sound Foundations for Cryptography: On The Work of Shafi Goldwasser and Silvio Micali Oded Goldreich

Semantic Web for the Working Ontologist, Third Edition

Dean Allemang, Fabian Gandon, and James Hendler

Software Evolution: Lessons Learned from Software History Kim Tracy

Static Programming Analysis Yannis Smaragdakis

Storage Systems: Organization, Coding, Performance, and Reliability Alex Thomasian

Tangible and Embodied Interaction Brygg Ullmer, Ali Mazalek, Orit Shaer, and Caroline Hummels

2 Penn Plaza, Suite 701, New York, NY 10121-0701 Tel: +1-212-626-0500 Fax: +1-212-944-1318 acmbooks-info@acm.org books.acm.org