Patterns of Data Modeling, Michael Blaha. Based on research and interviews with consumers, analysts, academics, and business leaders, these tried and tested patterns can help developers build data models better, faster, and with fewer mistakes. The book assumes a basic understanding of data modeling, but provides examples in such a way that readers needing to review will find that capacity built in.

Blaha focuses on two of the most popular notations—UML and IDEF1X—with coverage that ranges from basic data structures through star schema, archetypes for representing commonly found concepts, and canonical models for tough problems.


Securing the Borderless Network, Tom Gillis. This book reveals how today’s Web 2.0, virtualization, mobility, telepresence, and collaborative applications offer immense potential for enhancing productivity and competitive advantage. However, they also introduce daunting security issues, many of which cybercriminals already exploit.

This book gathers systematic and timely decision-making and technical guidance for companies of all sizes, covering information and techniques for protecting collaborative systems without compromising their business benefits. The author includes the latest Cisco technology solutions for managing identity and securing networks, content, endpoints, and applications. He concludes by discussing the evolution toward Web 3.0 applications and the Cisco security vision for the borderless enterprise.


Numerical Algorithms for Personalized Search in Self-Organizing Information Networks, Sep Kambar. This book lays out the theoretical groundwork for personalized search and reputation management in peer-to-peer and social networks. The book presents scalable algorithms that exploit the graphlike properties underlying personalized search and reputation management, and delves into realistic scenarios regarding Web-scale data.

The author focuses on eigenvector-based techniques in Web search, introducing a personalized variant of Google’s PageRank algorithm, then outlines other algorithms—such as the now-famous quadratic extrapolation technique—that speed up computation, making personalized PageRank feasible. Kamvar concludes with a description of the EigenTrust algorithm and applies various Page Rank concepts to peer-to-peer settings.


Polygon Mesh Processing, Mario Botsch, Leif Kobbelt, Mark Pauly, Pierre Alliez, and Bruno Levy. Geometry—or mesh processing—is a fast-growing area of research that uses concepts from applied mathematics, computer science, and engineering to design efficient algorithms for tasks such as acquiring, reconstituting, and analyzing complex 3D models. Applications of geometry-processing algorithms already cover a wide range of areas from multimedia, entertainment, and classical computer-aided design to biomedical computing, reverse-engineering, and scientific computing. Triangle meshes have become increasingly popular, as irregular triangle meshes have developed into an alternative to traditional spline surfaces. This book explores the entire geometry-processing pipeline based on triangle meshes.


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