BOOKSHELF

he Man Behind the Microchip: Robert Noyce and the Invention of Silicon Valley, Leslie Berlin. Hailed as the Thomas Edison and Henry Ford of Silicon Valley, Robert Noyce was an inventor, an entrepreneur, and a risk taker who piloted his own jets and skied mountains accessible only by helicopter. The author captures not only this colorful individual but also the vibrant interplay of technology, business, money, politics, and culture that shaped and still define Silicon Valley.

Cofounder of Fairchild Semiconductor and Intel, Noyce also coinvented the integrated circuit. Berlin paints a fascinating portrait of Noyce as an ambitious and intensely competitive multimillionaire who exuded a "just folks" charm, a Midwestern preacher's son who rejected organized religion but counseled his employees to "go off and do something wonderful," a man who never looked back and sometimes paid a price for it.

This vivid narrative also sheds light on Noyce's friends and associates, including some of the best-known managers, venture capitalists, and creative minds in Silicon Valley. Berlin draws upon interviews with dozens of key players in modern American business including Andy Grove, Steve Jobs, Gordon Moore, and Warren Buffett.

Oxford University Press, www.oup. com; 0-19-516343-5; 440 pp.; \$30.

First Course in Scientific Comput-A ing: Symbolic, Graphic, and Numeric Modeling, Rubin H. Landau. This book offers a new approach to introductory scientific computing that aims to make students comfortable using computers. The author strives to provide readers with the computational tools and knowledge they will need throughout their college careers and into their professional careers and to show how all the pieces can work together. The text introduces the requisite mathematics and computer science through realistic problems-from energy use to building skyscrapers to

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projectile motion with drag—then shows how each discipline uses its own language to describe the same concepts.

The book covers the basics of computation, numerical analysis, and programming from a computational science perspective. It uses the Maple problem-solving environment, moves on to the Java compiled language, and concludes with an introduction to LaTeX, replete with sample files.

Princeton University Press, http:// pup.princeton.edu/; 0-691-09065-3; 472 pp.; \$49.50.

Virtualization: From the Desktop to the Enterprise, Chris Wolf and Erick M. Halter. Creating a virtual network maximizes server use. This book demonstrates how to manage all aspects of virtualization across an enterprise, delving deeply into the technologies' interrelationships.

The authors cover both Microsoft and Linux environments, explore the many aspects of virtualization, including virtual machines, virtual file systems, virtual storage solutions, and clustering, and help readers understand which technologies might be right for their particular environment.

Apress; www.apress.com; 1-59059-495-9; 600 pp.; \$59.99.

M obile Web Services, Ariel Pashtan. Mobile Web services provide access to Web content anywhere and anytime. This book describes the key network elements, software components, and software protocols needed to realize these services, including the concept of user context and its potential to create personalized services. The book examines mobile Web functions such as location representation and tracking, security schemes, content personalization, and XSLT processing for browser content generation. The author reviews the WAP and i-mode architectures, reviews the latest mobile phone features, and discusses key aspects of browser mark-up languages. The text covers the ontology concepts that enable the wireless semantic Web and offers a novel definition and categorization of mobile user context in RDF Schema.

Cambridge University Press; www. cambridge.org; 0-521-83049-4; 284 pp.; \$60.

istributed Sensor Networks, S. Distributed School and Richard R. Brooks, eds. To create smart environments, researchers deploy thousands of sensors, each with a short-range wireless communications channel and capable of detecting ambient conditions such as temperature, movement, sound, light, or the presence of certain objects. With the emergence of highspeed networks and their increased computational capabilities, these distributed sensor networks have realtime applications in aerospace, automation, defense, medical imaging, robotics, and weather prediction.

This book offers the background theory and applications of this new technology. It provides essential coverage of wireless networks, signal processing, and self-organizing systems. Recurring themes include multidimensional data structures, reasoning with uncertainty, system dependability, and using metaheuristics.

Chapman & Hall/CRC; www. crcpress.com; 1-58488-383-9; 1144 pp.; \$139.95.

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