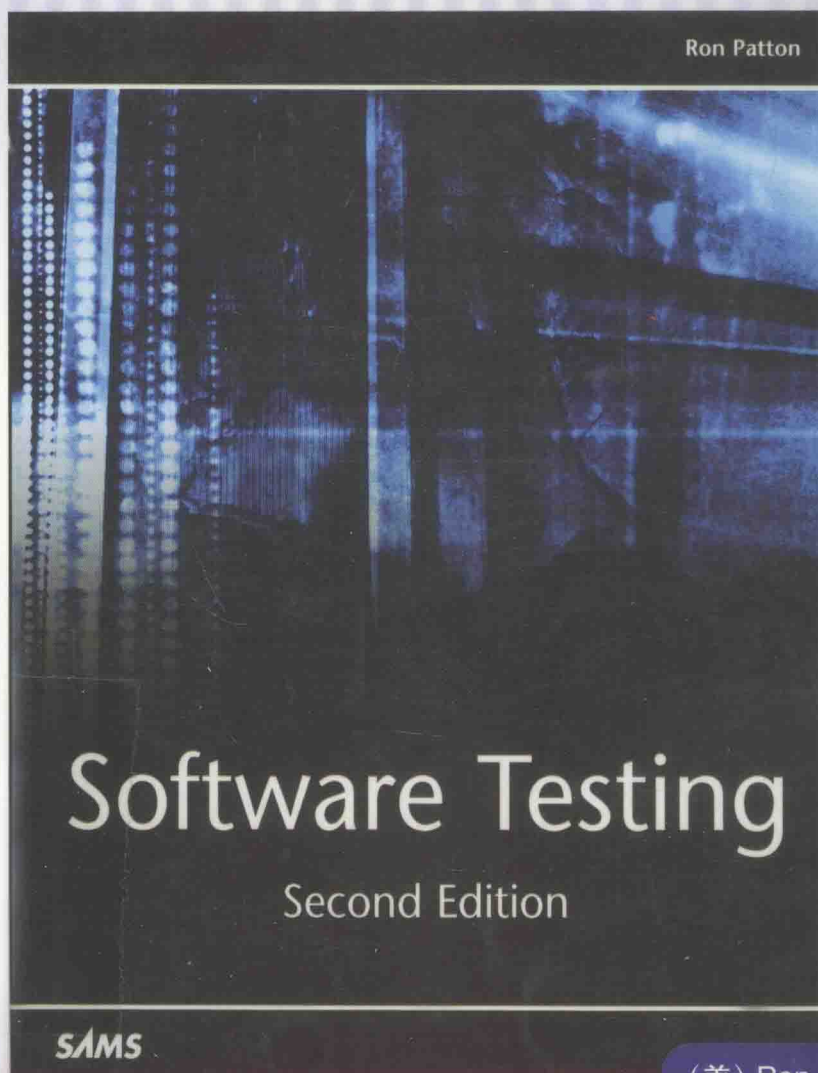


# 软件测试

(英文版·第2版)



(美) Ron Patton 著

经典原版书库

# 软件测试

(英文版·第2版)

Software Testing

(Second Edition)

(美) Ron Patton 著



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China Machine Press

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## 出版者的话

文艺复兴以降，源远流长的科学精神和逐步形成的学术规范，使西方国家在自然科学的各个领域取得了垄断性的优势；也正是这样的传统，使美国在信息技术发展的六十多年间名家辈出、独领风骚。在商业化的进程中，美国的产业界与教育界越来越紧密地结合，计算机学科中的许多泰山北斗同时身处科研和教学的最前线，由此而产生的经典科学著作，不仅擘划了研究的范畴，还揭橥了学术的源变，既遵循学术规范，又自有学者个性，其价值并不会因年月的流逝而减退。

近年，在全球信息化大潮的推动下，我国的计算机产业发展迅猛，对专业人才的需求日益迫切。这对计算机教育界和出版界都既是机遇，也是挑战；而专业教材的建设在教育战略上显得举足轻重。在我国信息技术发展时间较短、从业人员较少的现状下，美国等发达国家在其计算机科学发展的几十年间积淀的经典教材仍有许多值得借鉴之处。因此，引进一批国外优秀计算机教材将对我国计算机教育事业的发展起积极的推动作用，也是与世界接轨、建设真正的世界一流大学的必由之路。

机械工业出版社华章图文信息有限公司较早意识到“出版要为教育服务”。自1998年开始，华章公司就将工作重点放在了遴选、移译国外优秀教材上。经过几年的不懈努力，我们与Prentice Hall, Addison-Wesley, McGraw-Hill, Morgan Kaufmann等世界著名出版公司建立了良好的合作关系，从它们现有的数百种教材中甄选出Tanenbaum, Stroustrup, Kernighan, Jim Gray等大师名家的一批经典作品，以“计算机科学丛书”为总称出版，供读者学习、研究及收藏。大理石纹理的封面，也正体现了这套丛书的品位和格调。

“计算机科学丛书”的出版工作得到了国内外学者的鼎力襄助，国内的专家不仅提供了中肯的选题指导，还不辞劳苦地担任了翻译和审校的工作；而原书的作者也相当关注其作品在中国的传播，有的还专程为其书的中译本作序。迄今，“计算机科学丛书”已经出版了近百个品种，这些书籍在读者中树立了良好的口碑，并被许多高校采用为正式教材和参考书籍，为进一步推广与发展打下了坚实的基础。

随着学科建设的初步完善和教材改革的逐渐深化，教育界对国外计算机教材的需求和应用都步入一个新的阶段。为此，华章公司将加大引进教材的力度，在“华章教育”的总规划之下出版三个系列的计算机教材：除“计算机科学丛书”之外，对影印版的教材，则单独开辟出“经典原版书库”；同时，引进全美通行的教学辅导书“Schaum's Outlines”系列组成“全美经典学习指导系列”。为了保证这三套丛书的权

权威性，同时也为了更好地为学校和老师服务，华章公司聘请了中国科学院、北京大学、清华大学、国防科技大学、复旦大学、上海交通大学、南京大学、浙江大学、中国科技大学、哈尔滨工业大学、西安交通大学、中国人民大学、北京航空航天大学、北京邮电大学、中山大学、解放军理工大学、郑州大学、湖北工学院、中国国家信息安全测评认证中心等国内重点大学和科研机构在计算机的各个领域的著名学者组成“专家指导委员会”，为我们提供选题意见和出版监督。

这三套丛书是响应教育部提出的使用外版教材的号召，为国内高校的计算机及相关专业的教学度身订造的。其中许多教材均已为M. I. T., Stanford, U.C. Berkeley, C. M. U. 等世界名牌大学所采用。不仅涵盖了程序设计、数据结构、操作系统、计算机体系结构、数据库、编译原理、软件工程、图形学、通信与网络、离散数学等国内大学计算机专业普遍开设的核心课程，而且各具特色——有的出自语言设计者之手、有的历经三十年而不衰、有的已被全世界的几百所高校采用。在这些圆熟通博的名师大作的指引之下，读者必将在计算机科学的宫殿中由登堂而入室。

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## About the Author

**Ron Patton** lives in the Seattle area with his wife, Valerie. His software test experience is wide and varied, from mission-critical systems to painting programs for kids. Ron graduated from Penn State in 1984 with a B.S. degree in computer science. He began his career at Texas Instruments as a quality assurance engineer, testing embedded systems and user interface software for industrial automation equipment. In 1992 he joined Microsoft as a software test lead in the Systems Group for Multimedia Viewer, the authoring tool and multimedia display engine used by Encarta, Cinemania, and Bookshelf. He moved on to become the software test manager of the Kids Product Unit, shipping CD-ROM titles such as Creative Writer, Fine Artist, 3D Movie Maker, and the Magic School Bus series. Before he left Microsoft, he was the software test manager of the Hardware Group, responsible for the software shipped with the mouse, keyboard, gaming, telephony, and ActiMates product lines. He currently is a freelance project management and software quality consultant.

Ron's most memorable project was ActiMates Barney, for which he test managed both the hardware and software efforts. "Microsoft actually paid my team and me to shake, bake, freeze, thaw, pull, drop, tumble, dunk, and shock dozens of prototype Barney dolls until we reduced them to piles of electronic rubble and purple fuzz," he recalls. "You can't get much more test satisfaction than that."

If you have comments or suggestions for this book, or if you find a bug in it that you want to report, you can send Ron an email at [test@valart.com](mailto:test@valart.com).

# Dedication

*To my best friend and wife, Valerie, who's hoping that after I finish this second edition we can go on vacation to a tropical island.*

# Acknowledgments

Many thanks go to Sams Publishing and the editors and staff who helped me publish this second edition. A big thank you goes to Danny Faught who provided great input as an expert reviewer.

To my parents, Walter and Eleanore, for allowing me to quit my accordion lessons and buying me a TRS-80 Model I computer back in 1977. To my sister, Sandra, for keeping my parents busy with her baton competitions so I could hide in my room and learn to program. To Ruth Volland, my computer science teacher at Mohawk High School, for dragging me to all those science fairs and giving me extra time on the school's ASR 33 teletypes. To Mark Ferrell, who taught me electronics and kept me out of trouble as a teenager. To Alan Backus and Galen Freemon of TI for allowing me the freedom to explore software test automation. To all my past co-workers and employees for teaching me more than I could have ever learned myself about software testing. And, to my wonderful wife, Valerie, for saying, "Go ahead, send it in, see what happens" when, in 1991, I posed the question of sending my résumé to a little company in far-away Seattle called Microsoft. Each of you made a contribution to this book. Thank you!



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