Practical Augmented Reality: A Guide to the Technologies, Applications, and Human Factors for AR and VR (Usability)

Steve Aukstakalnis
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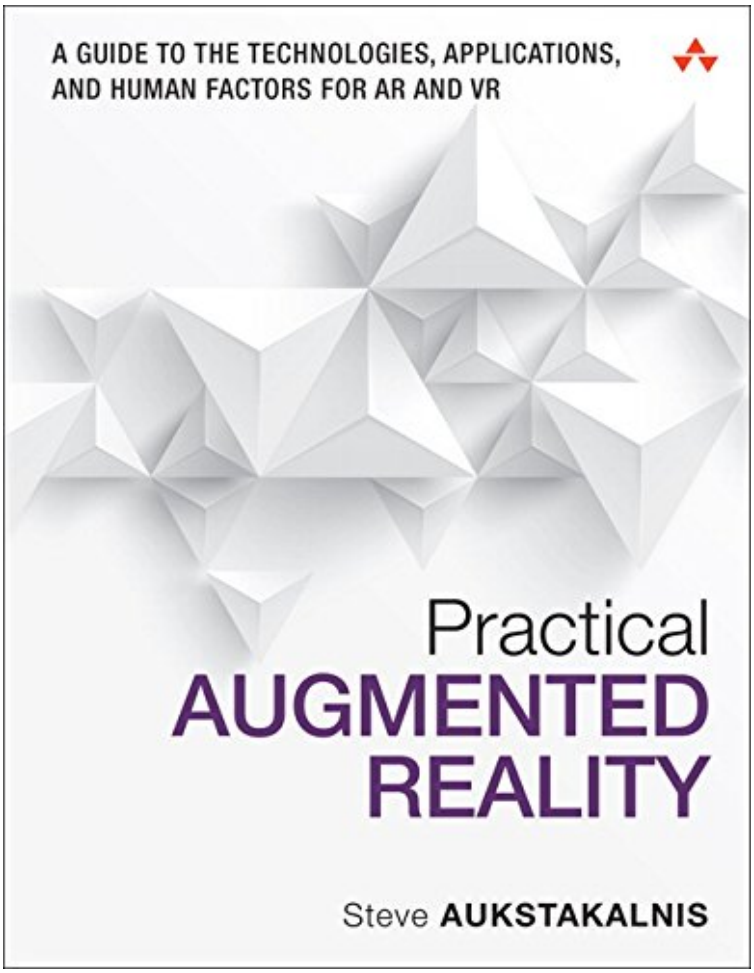

#83227 in Books Steve Aukstakalnis 2017-09-18Original language:EnglishPDF # 1 8.90 x .80 x 7.00l, .0 #File Name: 0134094239448 pagesPractical Augmented Reality A Guide to the Technologies Applications and Human Factors for AR and VR Usability | File size: 16.Mb

Steve Aukstakalnis : Practical Augmented Reality: A Guide to the Technologies, Applications, and Human Factors for AR and VR (Usability) before purchasing it in order to gage whether or not it would be worth my time, and all praised Practical Augmented Reality: A Guide to the Technologies, Applications, and Human Factors for AR and VR (Usability):

0 of 0 people found the following review helpful. A good read!By Susan Young MockThis is a great book to learn about AR. I'm using it in a Fundamentals of Technology class so students get an idea of what is out there now and where it could all lead in the future.0 of 0 people found the following review helpful. Five StarsBy Fernando

RondonExcellent0 of 0 people found the following review helpful. Four StarsBy SooBuyerinteresting

This is the most comprehensive and up-to-date guide to the technologies, applications and human factors considerations of Augmented Reality (AR) and Virtual Reality (VR) systems and wearable computing devices. Ideal for practitioners and students alike, it brings together comprehensive coverage of both theory and practice, emphasizing leading-edge displays, sensors, and other enabling technologies and tools that are already commercially available or will be soon. Beginning with a Foreword by NASA research scientist Victor Luo, Practical Augmented Reality starts by explaining the mechanics of human sight, hearing and touch, showing how these perceptual mechanisms (and their performance ranges) directly dictate the design and use of wearable displays, 3-D audio systems, and tactile/force feedback devices. The book presents revealing case studies of real-world applications from gaming, entertainment, Big Data visualization, engineering, aeronautics and aerospace, defense, medicine, telerobotics, architecture, law enforcement, and geophysics. Readers will find clear, easy-to-understand explanations, photos, and illustrations of devices including the Atheer AiR, HTC Vive, DAQRI Smart Helmet, Oculus (Facebook) CV1, Sony PlayStation VR, Vuzix M300, Google Glass, and many more. Functional diagrams and photographs clearly explain how these devices operate, and link directly to relevant theoretical and practical content. Practical Augmented Reality thoroughly considers the human factors of these systems, including sensory and motor physiology constraints, monocular and binocular depth cues, elements contributing to visually-induced motion sickness and nausea, as well as vergence-accommodation conflicts. It concludes by assessing both the legal and societal implications of new and emerging AR, VR, and wearable technologies, as well as provides a look next generation systems.

A valuable addition to the library of anyone setting out on their virtual journey. Dr Rab ScottHead of VR, Nuclear AMRC A well-presented introduction to advanced visualization technologies, which will provide readers with an informed overview of this fast-paced, high-tech industry. Chris Freeman,Augmented Reality Technical Fellow, University of Sheffield AMRC Filled with excellent, imaginative information that will inform both experienced and first-time readers alike.Practical Augmented Realityis worth reading not only for its wealth of data and research, but also for its insights into the markets and opportunities ahead of us. If you have an interest in this exciting new technology, this is a must-have resource and an enjoyable exploration into this brave new world. Roy TaylorCorporate Vice President for Content and Technology, AMD (Advanced Micro Devices) Steven Aukstakalnis stands on the ever-changing edge of the virtual and augmented reality world. Drawing from a rich history in the industry, he is able to share a clear understanding of the technologies, products, and ideas that will reshape the way we work and play. May the knowledge he shares empower you to help create a truly fantastic new future! Brent Baier,Creator of the Peregrine Glove Mixed or augmented reality is a grand frontier not only for computation, but for how people experience their world and each other. This book sets a frame around that which isnt framed. Read it in order to understand our new world. Jaron Lanier,Author ofWho Owns the FutureandYou Are Not A Gadget About the AuthorSteve Aukstakalnis is the former Director of the Virtual Environment and Interactive Systems Program at the National Science Foundation's Engineering Research Center for Computational Field Simulation. There, his work focused on the application of stereoscopic visually-coupled visual displays and interactive techniques in such areas as architecture, engineering, scientific visualization and national defense. He has served on the research staff at the University of Washington as well as the faculty of Mississippi State University. Steve has served an invited lecturer, instructor and researcher on the topic of virtual reality and advanced visual simulation for such organizations as the Dept. of Defense, U.S. Army, Naval Oceanographic Office, Nat'l Reconnaissance Office, University of Michigan, Pepperdine University, Purdue, Dartmouth, Nat'l Taiwan University, the Smithsonian Institution and a host of other universities, corporations and government agencies across N. America and around the world.