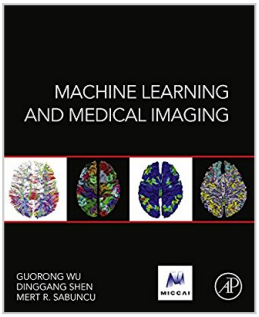

Machine Learning and Medical Imaging (Elsevier and Micca Society)

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Machine Learning and Medical Imaging presents state-of- the-art machine learning methods in medical image analysis. It first summarizes cutting-edge machine learning algorithms in medical imaging, including not only classical probabilistic modeling and learning methods, but also recent breakthroughs in deep learning, sparse representation/coding, and big data hashing. In the second part leading research groups around the world present a wide spectrum of machine learning methods with application to different medical imaging modalities, clinical domains, and organs.

The biomedical imaging modalities include ultrasound, magnetic resonance imaging (MRI), computed tomography (CT), histology, and microscopy images. The targeted organs span the lung, liver, brain, and prostate, while there is also a treatment of examining genetic associations. *Machine Learning and Medical Imaging* is an ideal reference for medical imaging researchers, industry scientists and engineers, advanced undergraduate and graduate students, and clinicians.

- Demonstrates the application of cutting-edge machine learning techniques to medical imaging problems
- Covers an array of medical imaging applications including computer assisted diagnosis, image guided radiation therapy, landmark detection, imaging genomics, and brain connectomics
- Features self-contained chapters with a thorough literature review
- Assesses the development of future machine learning techniques and the further application of existing techniques

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Editorial Review

From the Back Cover

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Machine Learning and Medical Imaging is an ideal reference for medical imaging researchers, industry scientists and engineers, advanced undergraduate and graduate students, and clinicians.

Key Features:

Assesses the development of future machine learning techniques and the further application of existing techniques About the Author
Guorong Wu is an Assistant Professor of Radiology and Biomedical Research Imaging Center (BRIC) in the University of North Carolina at Chapel Hill. Dr. Wu received his PhD degree from the Department of Computer Science in Shanghai Jiao Tong University in 2007. After graduation, he worked for Pixelworks and joined University of North Carolina at Chapel Hill in 2009. Dr. Wu's research aims to develop computational tools for biomedical imaging analysis and computer assisted diagnosis. He is interested in medical image processing, machine learning and pattern recognition. He has published more than 100 papers in the international journals and conferences. Dr. Wu is actively in the development of medical image processing software to facilitate the scientific research on neuroscience and radiology therapy.

Dinggang Shen is a Professor of Radiology, Biomedical Research Imaging Center (BRIC), Computer Science, and Biomedical Engineering in the University of North Carolina at Chapel Hill (UNC-CH). He is currently directing the Center for Image Informatics and Analysis, the Image Display, Enhancement, and Analysis (IDEA) Lab in the Department of Radiology, and also the medical image analysis core in the BRIC. He was a tenure-track assistant professor in the University of Pennsylvanian (UPenn), and a faculty member in the Johns Hopkins University. Dr. Shen's research interests include medical image analysis, computer vision, and pattern recognition. He has published more than 700 papers in the international journals and conference proceedings. He serves as an editorial board member for six international journals. He has served in the Board of Directors, The Medical Image Computing and Computer Assisted Intervention (MICCAI) Society, in 2012-2015.

Mert Sabuncu is an Assistant Professor in Electrical and Computer Engineering, with a secondary appointment in Biomedical Engineering, Cornell University. His research interests are in biomedical data analysis, in particular imaging data, and with an application emphasis on neuroscience and neurology. He uses tools from signal/image processing, probabilistic modeling, statistical inference, computer vision,

computational geometry, graph theory, and machine learning to develop algorithms that allow learning from large-scale biomedical data. Users Review**From reader reviews:**

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