

## *CURRICULUM VITAE*

### **Robert L. Janiczek, M.S.**

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#### **Education**

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2006 – University of Virginia Charlottesville, VA  
*Pursuing Ph.D. in Biomedical Engineering*  
Thesis Advisors: Frederick H. Epstein and Scott T. Acton

2003 – 2006 University of Virginia Charlottesville, VA  
*M.S. Electrical Engineering*  
Thesis Advisor: Scott T. Acton  
Thesis Title: Gradient Inverse Coefficient of Variation Snakes for Segmenting Myocardial Borders in Mice

1999 – 2003 University of Virginia Charlottesville, VA  
*B.S. Electrical Engineering with Distinction, Systems Engineering Minor*  
Thesis Advisor: Scott T. Acton  
Thesis Title: Classification of Lung Ventilation in Hyperpolarized Helium-3 Magnetic Resonance Images

#### **Research Experience**

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Research Assistant, Department of Biomedical Engineering, University of Virginia  
Advisor: Frederick H. Epstein, 2005 –  
*Developed new pulse sequences and performed experiments on 4.7T and 7T magnetic resonance scanners to investigate cardiovascular disease in small animals with emphases on myocardial infarction and atherosclerosis.*

Research Assistant, Virginia Image and Video Analysis Lab, University of Virginia  
Advisor: Scott T. Acton, 2002 -  
*Developed algorithms to automate the analysis of medical imagery including microscopy, ultrasound, and magnetic resonance imaging.*

#### **Grants**

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American Heart Association Predoctoral Fellowship, 2007 –  
Vascular MRI in mouse models of atherosclerosis.

#### **Teaching Experience**

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Teaching Assistant, Computational Biomedical Engineering (Undergraduate),  
University of Virginia, Department of Biomedical Engineering, 2007

Robert L. Janiczek, M.S.

Teaching Assistant, Science of Information (Undergraduate),  
University of Virginia, Department of Electrical and Computer Engineering, 2005

### **Technical Skills**

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MRI Pulse Sequence Development: Varian VnmrJ, Siemens VB11Z  
Programming Languages: MATLAB, C/C++

### **Academic Service**

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Minority Student Recruiter,  
University of Virginia, 2003-2007

School of Engineering and Applied Science Trustees' Communications Board,  
University of Virginia, 2005-2007

School of Engineering and Applied Science Trustees' Facilities Committee,  
University of Virginia, 2005-2007

Virginia Engineering Research Symposium, Co-Founder and Co-Chair,  
University of Virginia, 2005-2006

School of Engineering and Applied Science Dean Search Committee,  
University of Virginia, 2003-2005

Graduate Student Dean Advisory Committee,  
University of Virginia, 2004-2005

### **Professional Memberships**

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Institute of Electrical and Electronics Engineers

International Society for Magnetic Resonance in Medicine

### **Conference Proceedings**

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Aksel A, **Janiczek RL**, Hossack JA, Acton ST. Ultrasound myocardial tracking with speckle reducing anisotropic diffusion assisted initialization. International Conference on Image Processing; Atlanta, GA: 2006.

**Janiczek RL**, Gilliam AD, Antkowiak P, Acton ST, Epstein FH. Automated Affine Registration of First-Pass Magnetic Resonance Images. Thirty-Ninth Asilomar Conference on Signals, Systems and Computers; Pacific Grove, CA: 2005. p. 269-71.

**Janiczek RL**, Ray N, Acton ST, Roy RJ, French BA, Epstein FH. Markov chain Monte Carlo method for tracking myocardial borders. Computational Imaging III; San Jose, CA: 2005.

**Janiczek RL**, Tang J, Acton ST. Incorporating variance within binary flow for leukocyte tracking. Thirty-Eighth Asilomar Conference on Signals, Systems and Computers; Pacific Grove, CA: 2004. p. 1838-40 Vol.2.

Pickard JE, **Janiczek RL**, Acton ST, Sklenar J, Hossack JA, Kaul S. Segmentation of the myocardium from myocardial contrast echocardiography. Thirty-Eighth Asilomar Conference on Signals, Systems and Computers; Pacific Grove, CA: 2004. p. 1616-9 Vol.2.

## **Meeting Abstracts**

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**Janiczek RL**, Blackman BR, Acton ST, Gelfand BD, Roy RJ, Epstein FH. 3D MRA and 2D Phase Contrast Methods for Imaging the Aortic Arch in Mice. Society for Cardiovascular Magnetic Resonance; Rome, Italy: 2007.

**Janiczek RL**, Ray N, Acton ST, Roy RJ, French BA, Epstein FH. Automated Calculation of Myocardial Mass and Infarct Size in Mice Using a Monte Carlo Markov Chain Active Contour. Society for Cardiovascular Magnetic Resonance; San Francisco, CA: 2005.