

## JASON DANIEL WILLIAMS

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### Education:

Georgia Institute of Technology, Atlanta, Georgia

Ph.D. Candidate, College of Computing

Dissertation: *Tightening and Blending Subject to Set-Theoretic Constraints*, advised by Jarek Rossignac

Minor: Medical Imaging (acquisition with MR and ionizing radiation, medical image analysis)

Brown University, Providence, Rhode Island

Sc.B. Mathematics and Computer Science, with Honors, 2001

### Academic Honors:

President's Fellowship, Georgia Institute of Technology, 2001-2005

Phi Beta Kappa, Rhode Island Alpha, 1997

### Employment History:

Mathematical modeler, Department of Neuropsychiatry, Walter Reed Army Institute of Research, 1996-2001 (part-time 1996-1999)

Audiovisual grip, Graphics Lab, Department of Computer Science, Brown University, part-time 1995-1996.

### Research Experience:

Research Assistant, *Multiscale Topological Analysis of Deforming Shapes*, NSF CARGO DMS-0138320, 2002-2005.

### Teaching Experience:

Teaching Assistant, Introduction to Theoretical Computer Science, Spring 1997 and Spring 1998

Teaching Assistant, Introduction to Educational Technology, Fall 2001.

Teaching Assistant, Computers and Society, Spring 2001.

Teaching Assistant, Computing for Engineers, Summer 2004.

Teaching Assistant, Computers and Society, Summer 2006.

Teaching Assistant, 3D Complexity, Spring 2008.

Teaching Assistant, Computers and Society, Spring 2010.

### Journal Publications:

J. Williams and J. Rossignac. Tightening: Morphological simplification. *International Journal of Computational Geometry and Applications* 17(5), 2007.

A. Chica, J. Williams, et al. Pressing: Smooth isosurfaces with flats from binary grids. *Computer Graphics Forum* 27(1), 2007.

J. Williams and J. Rossignac. Mason: Morphological simplification. *Graphical Models* 67(4), 2005.

M. Johnson, G. Belenky, et al. Modulating the homeostatic process to predict performance during chronic sleep restriction. *Aviation, Space, and Environmental Medicine* 75(3), 2004.

### **Conference Papers:**

J. Williams. Relative convexity and the medial cover. *Fall Workshop on Computational Geometry*, 2008.

J. Williams and J. Rossignac. Tightening: Curvature-limiting morphological simplification. *ACM Symposium on Solid and Physical Modeling*, 2005.

J. Williams and J. Rossignac. Tightening: Curvature-limiting morphological simplification. *Fall Workshop on Computational Geometry*, 2004.

### **Abstracts:**

J. Williams et al. A method for computer-aided sleep/wake detection. *14th Congress of the European Sleep Research Society*, Madrid, Spain, 1998.

H. Sing et al. Frequency changes in awake EEG related to sleep deprivation. *14th Congress of the European Sleep Research Society*, Madrid, Spain, 1998.

R. Aladdin et al. Objective analysis of sleep electroencephalographic signals. *14th Congress of the European Sleep Research Society*, Madrid, Spain, 1998.

### **Technical Reports:**

T. Balkin, D. Thorne, et al. Effects of sleep schedules on commercial motor vehicle driver performance. *FMCSA-MCRT-00-015*, Department of Transportation, Federal Motor Carrier Safety Administration, 2000.

### **Avocational Experience:**

Board member, Telluride Association, 2000-present. The Telluride Association is a 501(c)(3) nonprofit corporation that promotes service, education, and democracy by providing free summer programs to high school students and room-and-board scholarships to university students.