

## Thomas Fogal

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- Professional Employment**
- Scientific Computing and Imaging Institute, University of Utah  
Software Developer September 2008 - Present
  - Oak Ridge National Laboratory, Oak Ridge, TN  
Graduate Scholar June 2008 - September 2008
  - Lawrence Livermore National Laboratory, Livermore, CA  
Graduate Scholar May 2007 - August 2007
  - Physics Department, University of New Hampshire  
Software Developer June 2004 - September 2006
- Education**
- University of New Hampshire, Durham, NH  
M.S. Computer Science December 2011  
Thesis title: "Parallel Volume Rendering for Large Scientific Data"
  - University of New Hampshire, Durham, NH  
B.S. Computer Science May 2006
- Affiliations**
- Center for Integrative Biomedical Computing (CIBC)  
Software Developer September 2006 - Present
  - Intel Visual Computing Institute  
Collaborator 2009 - Present
  - Visualization and Analytics Center for Enabling Technology (VACET)  
Software Developer September 2006 - December 2011
- Publications**
1. Carson Brownlee, *Thomas Fogal*, Charles D. Hansen, "GLuRay: Ray Tracing in Scientific Visualization Applications using OpenGL Interception." In *Proceedings of the Eurographics Symposium on Parallel Graphics and Visualization*, 2012.
  2. *Thomas Fogal*, Jens Krüger, "Efficient I/O for Parallel Visualization." In *Proceedings of the Eurographics Symposium on Parallel Graphics and Visualization*, pp. 81–90, 2011.
  3. *Thomas Fogal*, Jens Krüger, "Tuvok, an Architecture for Large Scale Volume Rendering." In *Proceedings of the 15th International Workshop on Vision, Modeling, and Visualization*, 2010

4. *Thomas Fogal*, Hank Childs, Siddharth Shankar, Jens Krüger, R. D. Bergeron, Philip Hatcher, “Large Data Visualization on Distributed Memory Multi-GPU Clusters.” In *Proceedings of High Performance Graphics*, pp. 57-66, 2010.
5. Christopher Butson, Georg Tamm, Sanket Jain, *Thomas Fogal*, Jens Krüger, “Evaluation of Interactive Visualization on Mobile Computing Platforms for Selection of Deep Brain Stimulation Parameters.” In *IEEE Transactions on Visualization and Computer Graphics*, 2012.
6. Jovana Knežević, Ralf-Peter Mundani, Ernst Rank, Hermilo Hernández, Tatjana Jevremović, *Thomas Fogal*, “Interactive Computing in Numerical Modelling of Particle Transport Methods.” In IADIS Conference on Theory and Practice in Modern Computing, July 17th-19th, 2012.
7. Tatjana Jevremovic, *Thomas Fogal*, Dong-OK Choe, Haori Yang, Jens Krüger, “The Role of Virtual Engineering and Emerging Visualization Tools in Nuclear Engineering Education and Training at the University of Utah.” In *Nuclear Engineering and Training Conference*, Prague, Czech Republic, May 2011.
8. Hank Childs, Eric Brugger, Brad Whitlock, Jeremy Meredith, Sean Ahern, Kathleen Bonnell, Mark Miller, Gunther H. Webeer, Cyrus Harrison, David Pugmire, *Thomas Fogal*, Christoph Garth, Allen Sanderson, E. Wes Bethel, Marc Durant, David Camp, Jean M. Favre, Oliver Rübél, Paul Navrátil, Matthew Wheeler, Paul Selby, Fabien Vivodtzev, “VisIt: An End-User Tool for Visualizing and Analyzing Very Large Data.” In *Proceedings of SciDAC 2011*, 2011.
9. E.W. Bethel, C.R. Johnson, S. Ahern, J. Bell, P.-T. Bremer, H. Childs, E. Cormier-Michel, M. Day, E. Deines, *T. Fogal*, C. Garth, C.G.R. Geddes, H. Hagen, B. Hamann, C.D. Hansen, J. Jacobsen, K.I. Joy, J. Krüger, J. Meredith, P. Messmer, G. Ostrouchov, V. Pascucci, K. Potter, Prabhat, D. Pugmire, O. Rübél, A.R. Sanderson, C.T. Silva, D. Ushizima, G.H. Weber, B. Whitlock, K. Wu. “Occam’s Razor and Petascale Visual Data Analysis.” In *Proceedings of SciDAC 2009, Journal of Physics: Conference Series*, Vol. 180, No. 012084, 2009.
10. *Thomas Fogal*, Jens Krüger. “Size Matters – Revealing Small Scale Structures in Large Datasets.” In *Proceedings of the World Congress on Medical Physics and Biomedical Engineering*, September 7 - 12, 2009, Munich, Germany, vol. 25/13, pp. 41-44, 2009.

## Service

### Mentoring

- **Tramy Nguyen**

Undergraduate

September 2010 - Present

“Meshing from Histological Slices for Model-Based Simulation of Syringes”

- **Greg Moffitt**  
Undergraduate

Fall Term 2010

“Composing Geometric Models of Nuclear Reactors Based on Simulation Inputs”