

**Mark Kim**  
10125 Oak Creek Ln.  
Knoxville Tn. 37932

801-414-7924  
mkim-at-sci.utah.edu  
<https://m-kim.github.io>  
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## Education

<b>University of Utah</b> <i>PhD. in Computing</i> Title: GPU-Enabled Surface Visualization	Advisor: Charles Hansen <i>Nov. 2015</i>
<b>University of Denver</b> <i>M.S. in Computer Science</i>	<i>2003-2005</i>
<b>University of Wisconsin, Madison</b> <i>B.S. in Computer Science and Philosophy</i>	<i>1998-2002</i>

## Research Experience

<b>Graphics Research Engineer</b> <i>Oak Ridge, TN</i>	Qualcomm <i>July 2020 - Present</i>
<b>Computer Scientist</b> <i>Oak Ridge, TN</i>	Oak Ridge National Laboratory <i>Apr. 2018 - July 2020</i>
<b>Postdoctoral Researcher</b> <i>Oak Ridge, TN</i>	Oak Ridge National Laboratory <i>Sep. 2016 - Apr. 2018</i>
<b>Postdoctoral Researcher</b> <i>Salt Lake City, UT</i>	Scientific Computing and Imaging Institute, University of Utah <i>Dec. 2015 - Sep. 2016</i>
<b>Research Assistant</b> <i>Salt Lake City, UT</i>	Scientific Computing and Imaging Institute, University of Utah <i>Aug. 2008 - Nov 2015</i>
<b>Graduate Intern</b> <i>Livermore, CA</i>	Livermore National Lab <i>May 2015 - Jul 2015</i>
<b>Graduate Intern</b> <i>Los Alamos, NM</i>	Los Alamos National Lab <i>May 2008 - Aug. 2008, May 2009 - Aug. 2009</i>

## Selected Works

Leventhal, S., M. Kim, and D. Pugmire. "PAVE: An In Situ Framework for Scientific Visualization and Machine Learning Coupling". In: *Proceedings of the 4th International Workshop on Data Reduction for Big Scientific Data (DRBSD-5)@SC'18*. Nov. 2019.

Kim, M., S. Klasky, and D. Pugmire. "Dense Texture Flow Visualization using Data-Parallel Primitives". In: *Eurographics Symposium on Parallel Graphics and Visualization*. Ed. by H. Childs and F. Cucchietti. The Eurographics Association, June 2018.

Pugmire, D., A. Yenpure, M. Kim, J. Kress, R. Maynard, H. Childs, and B. Hentschel. "Performance-Portable Particle Advection with VTK-m". In: *Eurographics Symposium on Parallel Graphics and Visualization*. Ed. by H. Childs and F. Cucchietti. The Eurographics Association, June 2018.

Kim, M., T. Evans, S. Klasky, and D. Pugmire. "In Situ Visualization of Radiation Transport Geometry". In: *Proceedings of the In Situ Infrastructures on Enabling Extreme-Scale Analysis and Visualization*. ISAV'17. Denver, CO, USA: ACM, 2017, pp. 7–11.

Kim, M. and C. Hansen. "Closest Point Sparse Octree for Surface Flow Visualization". In: *Proceedings of IS&T Visualization and Data Analysis, 2017*. (Feb. 2017).

Kim, M. and C. Hansen. "Surface Flow Visualization using the Closest Point Embedding". In: *2015 IEEE Pacific Visualization Symposium* (Apr. 2015).

Kim, M. and C. Hansen. "GPU Surface Extraction with the Closest Point Embedding". In: *Proceedings of IS&T/SPIE Visualization and Data Analysis, 2015*. Feb. 2015.

Kim, M., G. Chen, and C. Hansen. "Dynamic Particle System for Mesh Extraction on the GPU". In: *Proceedings of the 5th Annual Workshop on General Purpose Processing with Graphics Processing Units. GPGPU-5*. London, England: ACM, May 2012, pp. 38–46.

## Invited Talks

<b>Data Parallel Primitives and Scientific Visualization.</b> <i>Oak Ridge National Laboratory.</i>	Oak Ridge, TN. <i>March 2018.</i>
<b>Floating Point Array Compression on the GPU.</b> <i>GTC 2017</i>	San Jose, CA. <i>May 2017.</i>
<b>GPU-enabled Particle Systems for Visualization</b> <i>Oak Ridge National Laboratory</i>	Oak Ridge, TN <i>March 2015</i>
<b>Dynamic Particle System for Mesh Extraction on the GPU</b> <i>IAMCS-KAUST Workshop on Computational Biomedicine and Geophysics</i>	Salt Lake City, UT <i>April 5, 2012</i>
<b>Implicit Surfaces with a Particle System on the GPU</b> <i>IAMCS Workshop: Visualization in Biomedical Computation</i>	College Station, TX <i>February 23, 2011</i>
<b>GPGPU with CUDA</b> <i>Pervasively Parallel Solutions for Partial Differential Equations Workshop</i>	KAUST, Saudia Arabia <i>May 2-5, 2010</i>