Mark Kim

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Education

University of Utah   Advisor: Charles Hansen
PhD. in Computing   *Nov. 2015*
Title: GPU-Enabled Surface Visualization

University of Denver
M.S. in Computer Science   *2003-2005*

University of Wisconsin, Madison
B.S. in Computer Science and Philosophy   *1998-2002*

Research Experience

Computer Scientist   Oak Ridge National Laboratory
Oak Ridge, TN   *Apr. 2018 - Present*

Postdoctoral Researcher   Oak Ridge National Laboratory
Oak Ridge, TN   *Sep. 2016 - Apr. 2018*

Postdoctoral Researcher   Scientific Computing and Imaging Institute, University of Utah
Salt Lake City, UT   *Dec. 2015 - Sep. 2016*

Research Assistant   Scientific Computing and Imaging Institute, University of Utah
Salt Lake City, UT   *Aug. 2008 - No.v 2015*

Graduate Intern   Livermore National Lab
Livermore, CA   *May 2015 - Jul 2015*

Graduate Intern   Los Alamos National Lab
Los Alamos, NM   *May 2008 - Aug. 2008, May 2009 - Aug. 2009*

Selected Works

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, 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

Data Parallel Primitives and Scientific Visualization.   Oak Ridge, TN.
 Oak Ridge National Laboratory.   *March 2018.*

Floating Point Array Compression on the GPU.   San Jose, CA.
GTC 2017   *May 2017.*

GPU-enabled Particle Systems for Visualization   Oak Ridge, TN
Oak Ridge National Laboratory   *March 2015*

Dynamic Particle System for Mesh Extraction on the GPU   Salt Lake City, UT
IAMCS-KAUST Workshop on Computational Biomedicine and Geophysics   *April 5, 2012*

Implicit Surfaces with a Particle System on the GPU   College Station, TX
IAMCS Workshop: Visualization in Biomedical Computation   *February 23, 2011*

GPGPU with CUDA   KAUST, Saudia Arabia
Pervasively Parallel Solutions for Partial Differential Equations Workshop *May 2-5, 2010*