

Yong Joo Kil

Palo Alto Research Center (PARC), Palo Alto, CA
3333 Coyote Hill Road, Palo Alto, CA, 94304, USA
yongjk [at] gmail [dot] com, <http://graphics.cs.ucdavis.edu/~yjkil/>

Education

University of California, Davis.
Doctorate of Philosophy in Computer Science, 2009.
Research area: Geometric shape acquisition, analysis and modeling.
Advisor: Nina Amenta

University of California, Davis.
Bachelor of Computer Science, January 1999.
Music minor.

Experience

Palo Alto Research Center (PARC) *Postdoctoral Research Fellow*
Palo Alto, CA **Aug. 2009 – current**
Identification, visualization, and 3D shape retrieval of peptides/proteins from mass-spectrometry data. Funding through NSF/CRA Computer Innovation Fellows.

Computer Science Dept., Univ. of California, Davis *Graduate Research Assistant*
Davis, CA **Sept. 2002 – Mar. 2009**
Developing algorithms for the acquisition, surface representation, and reconstruction of large and complex 3D models for computer graphics.

Virtual Mirror Corporation *Full Time Software Developer*
San Rafael, CA **May 2000 – June 2002**
Developing new software applications for Adobe Illustrator. Author of integrated Adobe Illustrator components which include Liquify, Magic Wand, Advance Selection, and Segment Tools (available in version 10, CS, and up). Author of 12 plug-ins in Vector Studio and Vector Studio 2 for Adobe Illustrator.

Virtual Mirror Corporation *Part Time Software Engineer*
San Rafael, CA **June 1998 – Sept. 1998**
June 1997 – Sept. 1997
Software development utilizing spline manipulation and geometric transformations in the development of the Ink Pen component of Adobe Illustrator.

Neuroscience Dept., Univ. of California, Davis *Independent Researcher*
Davis, CA **April 1998 – June 1998**
Visualization of electromagnetic brain activities made from potential fields.

Computer Science Dept., Univ. of California, Davis *Independent Researcher*
Davis, CA **Dec. 1996 – Mar. 1997**
Creating a simulation and reconstruction method for Computed tomography machine.

Journals Papers

F. Abbasinejad, Y. J. Kil, A. Sharf, N. Amenta, "Rotating Scans for Systematic Error Removal," Journal of Eurographics on Symposium on Geometry Processing, pp. 1319-1326, 2009.
Awarded Second Best Paper.

Y. J. Kil, P. Renzulli, O. Kreylos, B. Hamann, G. Monno, O.G. Staadt. "3D Warp Brush Modeling," Journal of Computer and Graphics, Vol. 30, No. 4, 2006.

N. Amenta, Y. J. Kil, "Defining Point Set Surfaces," Journal of ACM SIGGRAPH, pp. 264-270, 2004.

Conference Papers

Y. J. Kil, N. Amenta. "GPU-assisted Surface Reconstruction on Locally-uniform Samples," Proceedings of the 17th International Meshing Roundtable, pp.369-385, 2008.

Y. J. Kil, B. N. Amenta. "Laser Scanner Super-resolution," Eurographics Symposium on Point-based Graphics, 2006.

D. Wiley, N. Amenta, D. Alcantara, D. Ghosh, Y. J. Kil, E. Delson, W. Harcourt-Smith, F. J. Rohlf, K. John, B. Hamann, "Evolutionary Morphing," IEEE Visualization, 2005.

N. Amenta, Y. J. Kil, "The Domain of Point Set Surfaces," Eurographics Symposium on Point-based Graphics, pp. 139-147, 2004.

Sketch and Posters

Y. J. Kil, N. Amenta, "Highly Parallel Surface Reconstruction on Locally-uniform Samples," Poster of Eurographics on Symposium on Geometry Processing, 2008.

Y. J. Kil, B. Mederos, N. Amenta. "Combining Laser Scans," Sketch of ACM SIGGRAPH, 2006.

Y. J. Kil, P. Renzulli, O. Kreylos, B. Hamann, G. Monno, O.G. Staadt. "3D Warp Brush: Interactive Free-Form Modeling on the Responsive Workbench," IEEE Virtual Reality, 2005.

Patents

M. Perani, Y.J. Kil, "Colorization of a gradient mesh," Patent. No. 6784896, 2004.

M. Perani, Y.J. Kil, "Painting interface to computer drawing system curve editing," Patent. No. 6963350, 2005.

M. Perani, Y.J. Kil, "Computer drawing shape manipulation with envelope meshes," Patent. No. 6963350, 2005.

Award, Professional, and Educational Activities

Award of the NSF/CRA Computer Innovation Fellowship, 2009.

Award of the Second Best Paper for "Rotating Scans for Systematic Error Removal," 2009.

Honorable mention in Evolutional Morphing in Science Magazine's Visualization contest, 2005.

Reviewer for ACM SIGGRAPH 2006–2007.

Reviewer for AKP Journal of Graphics Tools 2006.

Reviewer for Eurographics 2005, 2009.

Reviewer for ACM SIGGRAPH Asia 2009.

Attend ACM SIGGRAPH, 1999–2008.

Attend IEEE/Eurographics Symposium on Point-based Graphics, 2004–2006.

Attend Computer Graphics International, 2004.

Attend Symposium on Geometry Processing, 2008.

Invited talk U.C. Berkely, Berkely, CA, May 2005, June 2007.

Volunteer for weekly undergraduate math tutoring, 2004-2006.

Volunteer as mentor for an undergraduate interested in graduate school, 2005.

Volunteer for lab demonstrations for high school students, prospective graduate students, and various visitors, 2002-2007.

Volunteer to initiate and contribute to the internal wiki for the IDAV research lab, 2006-2008.

Participant in weekly graphics seminars, Univ. of Calif., Davis, 2002–2006.