

# Yong Joo Kil

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Institute for Data Analysis and Visualization (IDAV), University of California, Davis,  
One Shields Ave., Davis, CA 95616-8562, USA.  
kil@cs.ucdavis.edu, <http://graphics.cs.ucdavis.edu/~yjkil/>

## Education

University of California, Davis  
Graduate program in Computer Science  
Research area: Geometric shape analysis and modeling  
Advisor: Nina Amenta  
Enrollment date: September 2002

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

## Professional Experience

**Computer Science Dept., Univ. of California, Davis** *Graduate Research Assistant*  
Davis, CA **Sept. 2002 – Present**  
Developing new algorithms and data structures for efficient processing of geometric shapes. A major goal of this research is to guarantee desired surface properties such as geometric accuracy or topological properties such as being a manifold. An application involves interactive shape modeling and sculpting in virtual environments.

**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,CS2). 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.

## Publications

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

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 Modeling," Journal of Computer and Graphics, Vol. 30, No. 4, 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.

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.

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

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

Author of patent. No. 6,963,350, 6,919,888, 6,784,896.

**Computer Skills**

*Programming Languages:* C/C++, Java, Perl.  
*Programming Environments:* Microsoft Visual Studio, Metrowerks Code Warrior.  
*Operating Systems:* Linux, MacOS X, Windows 2000/XP.  
*Software:* Adobe Illustrator (guru) /Photoshop/Premier/After Effects, Alias Maya, Matlab, Mathematica.

**Professional and Educational Activities**

Reviewer for ACM SIGGRAPH 2006–2007.  
Reviewer for AKP Journal of Graphics Tools 2006.  
Reviewer for Eurographics 2005.

Attend ACM SIGGRAPH, 1999–2007.  
Attend IEEE/Eurographics Symposium on Point-based Graphics, 2004–2006.  
Attend Computer Graphics International, 2004.

Volunteer for weekly undergraduate math tutoring, 2004-2006.  
Volunteer as mentor for undergraduate interested in graduate school, 2005.  
Volunteer for lab demonstrations for high school students, prospective graduate students, and various visitors, 2002-2007.  
Volunteer to start and continuously contribute to the internal wiki for the IDAV research lab, 2006-2007.  
Participant in weekly graphics seminars, Univ. of Calif., Davis, 2002–2006.  
Honorable mention: Evolutional Morphing in Science Magazine's Visualization contest, 2005.

**Activities/ Interests**

Life figure drawing, racquet, tennis, swimming, karaoke, perception psychology, reading science related articles, digg.com.