Kenshi Takayama November 2011

kenshi84@acm.org
http://www-ui.is.s.u-tokyo.ac.jp/~kenshi/

RESEARCH INTERESTS

Computer graphics, volumetric modeling, user interface, texture synthesis, geometric modeling, image editing

EDUCATION

Ph.D. candidate, Computer Science (April 2009 - present)
The University of Tokyo, Japan
Advisor: Takeo Igarashi

M.S., Computer Science (April 2007 - March 2009)
The University of Tokyo, Japan
Thesis: Lapped solid textures: filling a model with anisotropic textures
Advisor: Takeo Igarashi

B.S., Information Science (April 2003 - March 2007)
The University of Tokyo, Japan
Thesis: Sketch based interface for designing volumetric vector fields
Advisor: Takeo Igarashi

PUBLICATIONS (Journal papers)

Kenshi Takayama, Ryan Schmidt, Karan Singh, Takeo Igarashi, Tamy Boubekeur, Olga Sorkine. **GeoBrush: Interactive Mesh Geometry Cloning**. *Computer Graphics Forum*, 30(2) (proceedings of Eurographics 2011), pp. 613–622.

Kenshi Takayama, Olga Sorkine, Andrew Nealen, Takeo Igarashi. **Volumetric Modeling with Diffusion Surfaces**. *ACM Transactions on Graphics*, 29(6) (proceedings of ACM SIGGRAPH Asia 2010), Article No.180.

Nobuyuki Umetani, Kenshi Takayama, Jun Mitani, Takeo Igarashi. **Responsive FEM for Aiding Interactive Geometric Modeling**. *IEEE Computer Graphics and Applications*, preprints, 2010.

Takashi Ijiri, Kenshi Takayama, Hideo Yokota, Takeo Igarashi. **ProcDef: Local-to-global Deformation for Skeleton-free Character Animation**. *Computer Graphics Forum*, 28(7) (proceedings of Pacific Graphics 2009), pp. 1821–1828.

Kenshi Takayama, Takashi Ashihara, Takashi Ijiri, Takeo Igarashi, Ryo Haraguchi, Kazuo Nakazawa. **A sketch-based interface for modeling myocardial fiber orientation that considers the layered structure of the ventricles**. *The Journal of Physiological Sciences*, 58(7), pp. 487–492, 2008.

Takashi Ijiri, Takashi Ashihara, Takeshi Yamaguchi, Kenshi Takayama, Takeo Igarashi, Tatsuo Shimada, Tsunetoyo Namba, Ryo Haraguchi, Kazuo Nakazawa. **A procedural method for modeling the Purkinje fibers of the heart**. *The Journal of Physiological Sciences*, 58(7), pp. 481–486, 2008.

Kenshi Takayama, Makoto Okabe, Takashi Ijiri, Takeo Igarashi. **Lapped Solid Textures: Filling a Model with Anisotropic Textures**. *ACM Transactions on Graphics*, 27(3) (proceedings of ACM SIGGRAPH 2008), Article No.53.

(Conference papers, sketches, posters)

Nobuyuki Umetani, Jun Mitani, Takeo Igarashi, Kenshi Takayama. **Designing Custom-made Metallophone with Concurrent Eigenanalysis**. *New Interfaces for Musical Expression++ (NIME++) 2010*.

Kenshi Takayama, Takeo Igarashi. **Layered Solid Texture Synthesis from a Single 2D Exemplar**. *ACM SIGGRAPH 2009 Posters*.

Makoto Okabe, Kenshi Takayama, Takashi Ijiri, Takeo Igarashi. **Light Shower: A Poor Man's Light Stage Built with an Off-the-shelf Umbrella and Projector**. *ACM SIGGRAPH 2007 Sketches*.

Kenshi Takayama, Takeo Igarashi, Ryo Haraguchi, Kazuo Nakazawa. **A sketch-based interface for modeling myocardial fiber orientation**. *Smart Graphics*, pp. 1-9, 2007.

AWARDS

NICOGRAPH International CG Awards (March 2009)

WORK EXPERIENCE

Research Fellow (April 2009 - present)
Japan Society for the Promotion of Science (JSPS), Japan

Research Assistant (October 2008 - February 2009)
JST ERATO Igarashi Design Interface Project, Japan

Chief Developer (April - December 2007)
Information-technology Promotion Agency (IPA) Exploratory Software Project, Japan

INVITED TALKS

Interactive 3D Modeling: Surfaces and Volumes, Autodesk Research, November 2011, hosted by Ryan Schmidt.

Interactive 3D Modeling: Surfaces and Volumes, University of Toronto DGP Graphics Meeting, September 2011, hosted by Karan Singh.

Volumetric Modeling of Internal Textures and Structures, University of Manitoba, August 2011, hosted by James Young.

Volumetric Modeling of Internal Textures and Structures, University of Calgary, June 2010, hosted by James Young.

Volumetric Modeling of Internal Textures and Structures, Harvard University, May 2010, hosted by Hanspeter Pfister.

3D Modeling of Internal Structures, New York University, March 2009, hosted by Olga Sorkine.

RESEARCH VISITS

Dynamic Graphics Project (DGP), University of Toronto (August 2011 – November 2011)
Host: Karan Singh
Funding support: Overseas Visit Program, Graduate School of Information Science and Technology, The University of Tokyo

VLG group, New York University (March 2010 – September 2010)
Host: Olga Sorkine
Funding support: JSPS Excellent Young Researchers Overseas Visit Program

VLG group, New York University (March 2009 – May 2009)
Host: Olga Sorkine

REFERENCES

(Upon request)