

Daiki Yamanaka

Department of Precision Engineering
Graduate School of Engineering
The University of Tokyo
7-3-1 Hongo, Bunkyo, 113,-0033
Tokyo, Japan

Email: yamanaka@den.rcast.u-tokyo.ac.jp
Homepage: <http://www.den.rcast.u-tokyo.ac.jp/yamanaka/>

Research Interest

Digital Geometry Processing, Digital Fabrication, 3D Acquisition and Reconstruction

Education

M.S., Engineering, University of Tokyo (2012 - present)
Advisor: Hiromasa Suzuki

B.S., Engineering, University of Tokyo (2009 - 2012)
Thesis: 3D Shape Generation with Deforming Unstructured Grid for CT Reconstruction
Advisor: Hiromasa Suzuki

Associate in Computer Engineering, Kurume National Collage of Technology(2005 - 2009)

Publications

Peer-reviewed Journal Articles

Daiki Yamanaka, Yutaka Ohtake, Hiromasa Suzuki, "The Sinogram Polygonizer for Reconstructing 3D Shapes", IEEE Transactions on Visualization and Computer Graphics(TVCG), vol.19, no.11, pp.1911-1922, Nov.2013, doi:10.1109/TVCG.2013.87

Seung-tak Noh, Sunao Hashimoto, Daiki Yamanaka, Masahiko Inami, Takeo Igarashi, "Design and enhancement of painting interface for room lights", The Visual Computer, Springer, September 2013, DOI 10.1007/s00371-013-0872-7.

Peer-reviewed Conference Proceedings

Seung-tak Noh, Sunao Hashimoto, Daiki Yamanaka, Masahiko Inami, Takeo Igarashi, "Lighty: A Painting Interface for Room Illumination by Robotic Light Array", INT'L Symposium on Mixed and Augmented Reality (ISMAR 2012), Poster, Atlanta, Georgia , USA, Nov. 5-8.

Daiki Yamanaka, Yutaka Ohtake, Hiromasa Suzuki, "2D Shape Extraction using CT Reconstruction on Triangle Mesh", Asian Conference on Design and Digital Engineering (ACDDE 2012), Niseko, Hokkeido, Japan, Dec. 5-8.

Conference Presentations

Daiki Yamanaka, Yutaka Ohtake, Hiromasa Suzuki, "The Sinogram Polygonizer for Reconstructing 3D Shapes", IEEE Vis 2013 (invited as TVCG paper).

Technical Skills

C++, C, Java, Python, OpenGL, Qt, OpenCV, CMake, Git,

- Cross-platform C++ development, across Mac, Windows and Linux platforms
- Developing large scale software (over 10 thousands lines)
- Familiar with some useful programming tools

Experience

Internship, July 2010 to August 2010

IBM Japan

Work for implementing debugging tools

Research Assistant, July 2009 to March 2013

JST ERATO Igarashi Design Interface Project

Work for implementing user interface softwares and physical prototypes.

Technical Researcher, March 2013 to present

abeja Inc.

Work for implementing image analysis algorithm and software described bellow

- Human detection and tracking from surveillance camera
- Gender and age estimation from facial images

Languages

English - Conversation level

Japanese - Native

Awards

Mutoh Excellent Student Award (2011)

Patents

Shape extraction method and shape extraction system