# Kazutaka Kurihara, Ph.D.

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### Research Interests

Entertainment Computing: Gamification, Active Video Appreciation, Speculative Engineering Human Computer Interaction: Multi-modal UIs, Communication Support Systems

# Professional / Work Experience

#### [Academia]

2014- Tsuda University: Associate Professor, Department of Computer Science

2013 National Institute of Advanced Industrial Science and Technology (AIST): Senior Research Scientist

2007-2012 National Institute of Advanced Industrial Science and Technology (AIST): Research Scientist

2007-2008 University of Tokyo: Assistant Professor, Center for Research and Development of Higher Education

#### [Non-academia]

2018- Coolied, inc.: Outside CTO <a href="https://www.coolied.co.jp/">https://www.coolied.co.jp/</a>

2017 Diverse Institute of Technology: Senior researcher

# Degrees

- Received an Ph.D. degree in Information Science and Technology, March 2007, The University of Tokyo, Japan. Ph.D. Thesis: A Study on Software Tools for Flexible Presentations. Advisor: Takeo Igarashi.
- Completed an intensive educational course of Professional Programme for Strategic Software, October 2004, The University of Tokyo, Japan.
- Received a M.S. degree in Engineering (Mechano-Informatics), March 2002, The University of Tokyo, Japan. M.S. Thesis: Realtime Data Processing of Optical Motion Capture and its Application for Humanoid Teleoperation. Advisor: Yoshihiko Nakamura.
- Received a B.S. degree in Engineering (Mechano-Informatics), March 2000, The University of Tokyo, Japan. B.S. Thesis: Micro-thermocouple Sensor and Data Logger System Mounted on Insects. Advisor: Isao Shimoyama

#### Honors

1. ACE 2017 Bronze Paper Award 2018/2/7 http://ace2017.info/awards/

- IPSJ Specially Selected Paper Award 2017/4/18
   http://www.ipsj.or.jp/award/ssp\_award.html#anc1
- 3. IPSJ Yamashita SIG Research Award 2017/3/16 <a href="http://www.ipsj.or.jp/award/yamasita2016-detail.html#ec">http://www.ipsj.or.jp/award/yamasita2016-detail.html#ec</a>
- 4. Interaction 2017 Best Paper Nominee 2017/3/2 http://www.interaction-ipsj.org/2017/award/
- 5. Mashup Awards 2016 For All, Champion 2016/12/17 http://mashupaward.jp/winninglist-2016/
- WISS 2016 Best Presentation Award 2016/12/16 https://gyazo.com/9da79f31c07b7394431f11fc03d72648
- 7. EC 2016 Best Demo Award 2016/11/25 http://ec2016.entcomp.org/
- 8. Mashup Awards 11, Mashup Category Award 2015/11/18 http://mashupaward.jp/2015/11/finalbattle/
- 9. EC 2015 Best Paper Award 2015/09/27 http://ec2015.entcomp.org/
- 10. ADADA 2015 Research Award 2015/08/25 https://www.facebook.com/1560691110876556/photos/a.1631992307079769.1073741
- 11. Mashup Awards 10 Silly App Category Award 2014/11/19
  <a href="http://mashupawards.tumblr.com/post/102370840146/finalstage-15-ma10">http://mashupawards.tumblr.com/post/102370840146/finalstage-15-ma10</a>
- 12. Mashup Awards 10 Microsoft Award 2014/11/19
  <a href="http://mashupawards.tumblr.com/post/102370840146/finalstage-15-ma10">http://mashupawards.tumblr.com/post/102370840146/finalstage-15-ma10</a>
- 13. Japanese Academy of Facial Studies Harashima Award 2014 2014/10/26
- 14. Microsoft Azure Research Award 2014/09
- 15. JSSST Best Paper Award 2014/09
- 16. Ig Nobel Acoustics Prize 2012/09/20 http://www.improbable.com/ig/winners/#ig2012
- 17. WISS 2011 Best Paper Award 2011/12
- 18. WISS 2011 Best Presentation Award 2011/12
- 19. EC 2011 Best Demonstration Award 2011/10 (For CinemaGazer)
- 20. EC 2011 Best Demonstration Award 2011/10 (For a Kinect-based Presentation Tool)
- 21. IPSJ SIGHCI Contribution Award 2011/03
- 22. JSSST Best Paper Award 2008/05
- 23. IEICE SIGMVE MVE Award 2008/01/25
- 24. JSPS Fellowship (DC2) 2006/4/1

# Publications (Peer-reviewed Papers)

Lists only the publication in English. I have many other publications in Japanese. See my website in Japanese (<a href="http://www.unryu.org/">http://www.unryu.org/</a>).

#### [Journal articles]

• Yohei Tutiya and Kazutaka Kurihara, "Parimutuel system of the Japanese race track: Voting and ranking process,", Journal of Gambling Business and Economics, Vol.9, No.2, pp.27-39, 2015.

 NAGANO Naoshi, KURIHARA Kazutaka, WATANABE Yuta, FUJIMURA Yuichi, MINAZUKI Akinori, HAYASHI Hidehiko, "Development and Evaluation of an Electronic Whiteboard Interface Using Multi-touch and Pie Menus," Educational technology research, Vol.34, No.1(2011), 217-227.

### [Proceeding articles, first author]

- Kazutaka Kurihara, Akari Itaya, Aiko Uemura, Tetsuro Kitahara, and Katashi Nagao: "Picognizer: A JavaScript Library for Detecting and Recognizing Synthesized Sounds," *Proceedings of the 14th International Conference on Advances in Computer Entertainment Technology (ACE 2017)*, pp.339-359, December 2017. (Bronze Paper Award)
- Kazutaka Kurihara: "Toolification of Games: Achieving Non-game Purposes in the Redundant Spaces of Existing Games," *Proceedings of the 12th International Conference on Advances in Computer Entertainment Technology (ACE 2015)*, pp.31:1-31:5, November 2015.
- Kazutaka Kurihara, Yoko Sasaki, Jun Ogata, and Masataka Goto: "Two-level Fast-forwarding Using Speech Detection for Rapidly Perusing Video," *Proceedings of the 5th Augmented Human International Conference (AH'17)*, pp.19:1-19:2, March 2014. DOI=10.1145/2582051.2582070
- Kazutaka Kurihara, Masakazu Takasu, Haruyuki Seki, Takayuki Narabu, Mitsuho Yamamoto, Tetsu Iida, Hiroyuki Yamamoto: "A Face-Like Structure Detection on Planet and Satellite Surfaces Using Image," *Proceedings of the 10th International Conference on Advances in Computer Entertainment Technology (ACE 2013)*, Springer LNCS 8253, p.564, November 2013.
- Kazutaka Kurihara and Koji Tsukada: "SpeechProtector: A Speech Protection System for Preventing Reporting Bias," *Proceedings of HCI International 2013 Posters' Extended Abstracts Communications in Computer and Information Science*, Vol.374, pp.740-744, July 2013.
- Kazutaka Kurihara: "CinemaGazer: A System for Watching Videos at Very High Speed," Proceedings of the 11th International Working Conference on Advanced Visual Interfaces (AVI'12), pp.108-115, May 2012.
- Kazutaka Kurihara, Naoshi Nagano, Yuta Watanabe, Yuichi Fujimura, Akinori Minaduki, Hidehiko Hayashi, and Yohei Tutiya: "Toward Localizing Audiences' Gaze Using a Multi-touch Electronic Whiteboard with sPieMenu," *Proceedings of the 15th International Conference on Intelligent User Interfaces (IUI'11)*, pp.379-382, February 2011.
- Kazutaka Kurihara, Toshio Mochizuki, Hiroki Oura, Mio Tsubakimoto, Toshihisa Nishimori, Jun Nakahara, Yuhei Yamauchi, and Katashi Nagao: "Linearity and Synchrony: Quantitative Metrics for Slide-based Presentation Methodology," *Proceedings of the 12th International Conference on Multimodal Interfaces and the 7th Workshop on Machine Learning for Multimodal Interaction (ICMI-MLMI 2010)*, pp.33:1-33:4, November 2010.
- Kazutaka Kurihara, Toshio Mochizuki, Hiroki Oura, Mio Tsubakimoto, Toshihisa Nishimori, Jun Nakahara, Yuhei Yamaguchi, and Shin'ichi Watanabe: "Borderless Canvas: Development of a Multi-display Discussion Software for Knowledge-emergent Presentations," *Proceedings of ED-MEDIA World Conference on Educational Multimedia, Hypermedia & Telecommunications*, pp.3676-3681, June 2009.

- Kazutaka Kurihara, Masataka Goto, Jun Ogata, Yosuke Matsusaka, and Takeo Igarashi:
   "Presentation Sensei: A Presentation Training System Using Speech and Image
   Processing," Proceedings of the 9th International Conference on Multimodal Interfaces (ICMI 2007), pp.358-365, November 2007.
- Kazutaka Kurihara and Takeo Igarashi: "A Flexible Presentation Tool for Diverse Multi-display Environments," *Lecture Notes in Computer Science* 4662, *Part I*, pp.430-433, September 2007.
- Kazutaka Kurihara, Masataka Goto, Jun Ogata, and Takeo Igarashi: "Speech Pen: Predictive Handwriting Based on Ambient Multimodal Recognition," *Proceedings of ACM SIGCHI Conference on Human Factors in Computing Systems*, pp.851-860, April 2006.
- Kazutaka Kurihara, David Vronay, and Takeo Igarashi: "Flexible Timeline User Interface Using Constraints," *Proceedings of ACM SIGCHI Conference on Human Factors in Computing Systems*, pp.1581-1584, April 2005.
- Kazutaka Kurihara, Shin'ichiro Hoshino, Katsu Yamane, and Yoshihiko Nakamura: "Optical Motion Capture System with Pan-Tilt Camera Tracking and Realtime Data Processing," *Proceedings of IEEE International Conference on Robotics and Automation*, Vol.2, pp.1241-1248, May 2002.

#### [Proceeding articles with reviews, non-first author]

- Takuya Iwamoto, Kazutaka Kurihara, Maya Esora, and Kazushi Nishimoto, "Towards Soft Landing in an Online Dating Service: Bridging the Ideal-real Gap," *Proceedings of the 8th Augmented Human International Conference (AH'17)*, pp.37:1-37:2, March 2017.
- Maho Oki, Koji Tsukada, Kazutaka Kurihara, and Itiro Siio: "HomeOrgel: Interactive Music Box for the Aural Representation of Home Activities," *Proceedings of the 10th Asia Pacific Conference on Computer Human Interaction (APCHI 2012)*, pp.177-186, August 2012.
- Maho Oki, Koji Tsukada, Kazutaka Kurihara, and Itiro Siio: "HomeOrgel: Interactive Music Box to Present Actual Home Activities with Symbolic Sounds," Adjunct Proceedings of Pervasive 2012 (Demo), June 2012.
- Yuichi Murata, Kazutaka Kurihara, Toshio Mochizuki, Buntarou Shizuki, and Jiro Tanaka: "Design of shadows on the OHP metaphor-based presentation interface which visualizes a presenter's actions," Proceedings of 14th International Conference on Human-Computer Interaction (HCII'11) (Lecture Notes in Computer Science 6762, pp.557-564, Springer), July 2011.
- Tadashi Inagaki, Hitoshi Nakagawa, Masuo Murai, Masayuki Shimizu, Yu Nakahashi, Takayuki Uchigaito, Tomohiro Yamamoto, Kazutaka Kurihara, and Shoichi Futaki: "What Do Interactive Whiteboards and Tablet PCs Bring to a Classroom?" T. Bastiaens & M. Ebner (Eds.), Proceedings of ED-MEDIA 2011 World Conference on Educational Multimedia, Hypermedia and Telecommunications, pp. 406-411, Chesapeake, VA: AACE, 2011.

### Talks

[Invited talks, Academia]

- Kazutaka Kurihara, Koji Tsukada: "SpeechJammer: Disturbing Speech of Creatures in the Universe," at The 2012 Ig nobel prize Informal Lecture at MIT, Massachusetts, USA, September 22, 2012.
- Takeo Igarashi, Kazutaka Kurihara, and Yoshie Otsuka, "Advanced User Interfaces for Pen-based Computers and its Application to Education," Asia-Pacific Regional Workshop on Mobile Computing in Education, 2006

### [Invited talks, Non-academia]

- Kazutaka Kurihara, "Making people laugh and then think: Keynote for Amalthea'13," Amalthea'13,
   India, 2013/10/20.
- Kazutaka Kurihara, "Making people laugh and then think: Keynote for Tathva'13," Tathva'13, India 2013/10/19.
- Kazutaka Kurihara, "Ig Nobel Prize: Making people laugh and think," Tryst 2013, India, 2013/3/2.
- Kazutaka Kurihara, "More than one, two, tree, but less than a lot,", TEDxTokyo yz, Tokyo, 2013/2/2.

### Reference

Professor Takeo Igarashi (Ph.D. research advisor)

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