

Curriculum Vitae of Younghee Kwon

CS Department, KAIST, 335 Gwahangno
Daejeon 305-701, Republic of Korea
+82-42-350-3557 (Office)
+82-11-9402-3340 (Mobile)
kyhee_at_ai.kaist.ac.kr

Education

- 2002-Present KAIST (Korea Advanced Institute of Science and Technology)
Daejeon, Korea
Working for Ph.D. degree in Computer Science supervised by Professor Jin Hyung Kim. Have worked on some projects as research assistant in Artificial Intelligence Pattern Recognition Laboratory.
- 2000-2002 KAIST (Korea Advanced Institute of Science and Technology)
Daejeon, Korea
Received M.S. degree in Computer Science in August 2002. Wrote a thesis on *Image Analysis for Classification and Counting of Microbes*, advised by Professor Jin Hyung Kim. Took a summer course in Stanford University from June through August 2002.
- 1996-2000 KAIST (Korea Advanced Institute of Science and Technology)
Daejeon, Korea
Received Bachelor's degree in Computer Science in February 2000. Participated in development of computer-powered college dormitory management system.
- 1994-1996 Pusan High School of Science (Now renamed as Korea Science Academy)
Busan, Korea
Graduated in February 1996. One-year earlier graduation.

Involved Projects

- 2001.7-2006.7 *Development of Multi-modal input system for next-generation PC environment* (National Research Laboratory Project), KAIST, funded by Ministry of Science and Technology (of Korean government)
- 2004.11-2005.6 *Video Text Recognition S/W Development*, KAIST, funded by Samsung Advanced Institute of Technology (SAIT)
- 2003.6-2004.1 *Kernel Methods for Computer Vision*, Max Planck Institute for biological Cybernetics in Tuebingen, funded by Max-Planck-Gesellschaft

R&D Experiences

- 2002.3-2002.6 *Barcode Detection and Recognition from Highly Distorted Image with Low Quality*, AIPR LAB in KAIST
- 2001.4-2001.12 *Development of Image Analysis System for Classification and Counting of Microbes*, R&D Center in TS Food Corporation and AIPR LAB in KAIST
- 2000.10-2001.4 *Development of Driver for Keyboards with Arrangement by Ahnmatae using Windows IME Management*, AIPR LAB in KAIST
- 1999.9-2000.2 *Recognition system for formatted fax cover papers*, the CS graduation project, advised by Prof. Jin Hyung Kim, CS Department of KAIST

1997.9-1998.12 Worked as a programmer in the software team in development and support of *KAIST dormitory administration system*

Publications

- Thesis *Image Analysis for Classification and Counting of Microbes*, for the degree of Master of Science in Department of Computer Science, KAIST, 2002 (in Korean)
- Journal Han-Sung Kim, Younghee Kwon, Sung-Deok Cha, "Efficient Masquerade Detection Based on SVM," *Journal of the Korea Institute of Information Security and Cryptology*, v.13, n.5, pp.91-104, October 2003 (in Korean)
- Conference Proceeding Battulga Bayarsaikhan, Younghee Kwon, and Jin Hyung Kim, "Anisotropic Total Variation Method for Text Image Super-Resolution," The 8th IAPR International Workshop on Document Analysis Systems (DAS 2008), Nara, Japan, September 16-19, 2008
- Kwang In Kim, Younghee Kwon, "Example-Based Learning for Single-Image Super-Resolution," *Pattern Recognition, 30th DAGM Symposium*, Munich, Germany, June 10-13, 2008, *Proceedings of LNCS 5096 Springer 2008*, pp.456-465
- Younghee Kwon and Jin Hyung Kim, "State-wise Potential Description for Modeling Relationships between Distant Nodes in Markov Random Fields," The 2nd Korea-Japan Joint Workshop on Pattern Recognition (KJPR 2007), Matsushima, Japan, IEICE Technical Report, vol. 107, no. 281, PRMU2007-92, pp.9-14, Oct. 2007
- Jinsik Kim, Seonghun Lee, Younghee Kwon, and Jin Hyung Kim, "Stroke verification with gray-level image for Hangul video text recognition," The eighteenth International Conference on Pattern Recognition, v.2, pp.1074-1077, 2006, Hong Kong
- J. Park, Y. Kwon, and J. Kim, "An Example-based Prior Model for Text Image Super-resolution," The eighth International Conference on Document Analysis and Recognition (ICDAR 2005), pp.374-378, August 2005, Seoul, Korea
- Matthias O. Franz and Younghee Kwon, Carl Edward Rasmussen, Bernhard Schölkopf, "Semi-supervised Kernel Regression Using Whitened Function Classes," *Pattern Recognition, 26th DAGM Symposium*, Tuebingen, Germany, August 2004, *Proceedings of LNCS 3175 Springer 2004*, pp.18-26
- Y. Kwon, J. H. Kim, S. Y. Yoon, and S. W. Yoon, "Image Analysis System for Automatic Classification and Counting of Microbes" in *29th Proceeding of KISS Spring Conference*, pp.607-609, April 2002 (in Korean; Best paper award)

Ability

Research Interests and Backgrounds Probabilistic inference and graphical models (MRF, CRF, BN, ...)
Application for image processing / analysis / understanding
Text information extraction from images (camera-captured or video frames)
Functional analysis and kernel machines

Development Environment C/C++, MATLAB, java
Emacs in Linux, MS Visual studio (with MFC), SVN, CVS, Source Safe

Reference

Further Information is available from:
Prof. Kim, Jin Hyung (jkim_at_cs.kaist.ac.kr),
Ph.D. Kim, Kwang In (kimki_at_tuebingen.mpg.de),