Junha Roh

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RESEARCH INTERESTS

Artificial Intelligence, Machine Learning, Computer Vision, Robotics

EDUCATION

Master of Science, Electrical Engineering and Computer Science, Seoul National University, Seoul, Korea (March 2011 - February 2013)

Advisor: Kyoung Mu Lee, GPA: $4.09\ /\ 4.30$

Bachelor of Science, Electrical and Computer Engineering,

Seoul National University, Seoul, Korea (March 2007 - February 2011)

Summa Cum Laude, GPA: 4.00 / 4.30

Seoul Science High School (March 2005 - February 2007)

APPOINTMENTS

Researcher (on leave) Mar. 2013 - Present

Korea Institute of Science and Technology

Research Intern Jul. 2010

 $LG\ Electronics$

PROJECTS

2D/3D human pose estimation with structured CNN Oct. 2015 - Present

Korea Institute of Science and Technology

Prediction of 3D human pose from multiple cameras by combining 2D structured prediction of CNN.

Mesh alignment with texture for dynamic 3D modeling Nov. 2014 - Present

Korea Institute of Science and Technology

Alignment of meshes using geometry and texture for high quality 3D modeling of dynamic objects.

TGV-1 Scene flow estimation for dynamic 3D modeling Dec. 2013 - Sep. 2014

Korea Institute of Science and Technology

A fast $TGV-l^1$ scene flow estimation from RGB-D stream for dynamic 3D modeling.

Video editing and free view generation Aug. 2013 - Nov. 2013

Korea Institute of Science and Technology

Video editing and free view generation from multiple cameras.

PUBLICATIONS

Junha Roh, Hwasup Lim, and Sang Chul Ahn, *A Fast TGV-l*¹ *RGB-D Flow Estimation*, 10th International Symposium on Visual Computing (ISVC 2014, *oral*)

Junseok Kwon, **Junha Roh**, Kyoung Mu Lee and Luc Van Gool, *Robust Visual Tracking with Double Bounding Box Model*, European Conference on Computer Vision (ECCV 2014, **27.6**% acceptance rate)

Junha Roh, Dong Woo Park, Junseok Kwon and Kyoung Mu Lee,

Visual Tracking using the Joint Inference of Target State and Segment-based Appearance Models, Asia Pacific Signal and Information Processing Association Conference (APSIPA 2013, oral)

Junha Roh, Visual Tracking using Joint Inference of Target State and Segment-based Appearance Models, Masters thesis, 2013, Seoul National University, Korea

COMPUTER SKILLS

Proficient programming skills in C, C++ with OpenCV, and MATLAB. Conversant with C#, Java, Python, JavaScript, LATEX.

HONORS AND AWARDS

Samsung Scholarship, \$50,000 per year (2016 - 2020)

Fulbright Scholarship, \$70,000 for two years (gratefully declined, 2015)

Kwanjeong Educational Foundation Scholarship for Graduates, \$9,000 per year (2011 - 2012)

Commendation from Seoul National University Engineering Alumni Association (2011)

Volunteer Award, Dept. of Electrical Engineering, Seoul National University (2011)

Seoul National University Foundation for ECE Scholarship, \$3,500 (February 2011)

National Science & Engineering Undergraduate Scholarship, \$6,000 per year (2007 - 2010)

Silver Medal in Korea Physics Olympiad (2005)

PATENTS

Pending: Device for extracting depth information using infrared light and method thereof, 2014 U.S. Patent Application Number: 20,140,361,175

Device for extracting depth information using infrared light and method thereof, 2015 Korea Patent Number 101,487,812

Apparatus and method for automatic animation of an object inputted randomly, 2015 Korea Patent Number 101,496,440

EXTRACURRICULAR ACTIVITIES

Areumtor, taught high school students math

Edushare, taught middle school students math and science

Editor and designer of the Departmental Newsletter, Dept. EE, Seoul National University, Sep. 2010 - Dec. 2010

Tutor, College of Engineering, Seoul National University, Sep. 2009 - Feb. 2010

Undergraduate Research Program, Korea Foundation for the Advancement of Science and Creativity, Sep. 2008 - Oct. 2009