

BINH HUY LE

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PROFESSIONAL EXPERIENCES

Senior Research Scientist Search for Extraordinary Experiences Division (SEED), Electronic Arts, Los Angeles, CA	<i>November 2017 - now</i>
Visiting Post Doctoral Pixar Research Group	<i>June 2016 - September 2016</i>
Post Doctoral Associate Disney Research Pittsburgh	<i>September 2014 - May 2016</i>
Summer Research Intern Computational Photography team, Nokia Research Center, Sunnyvale, CA	<i>May 2013 - August 2013</i>
Research Assistant Computer Graphics and Interactive Media Lab, University of Houston	<i>2008 - 2014</i>
Teaching Assistant Computer Science Department, University of Houston	<i>2010 - 2013</i>

EDUCATION

Ph.D. in Computer Science University of Houston (<i>Dissertation: Example-based Rigging and Real-time Animation of Characters with Linear Skinning Models</i>)	<i>2008 - 2014</i> (<i>GPA: 3.938</i>)
B.S. in Computer Science Vietnam National University, Hanoi	<i>2003 - 2007</i> (<i>GPA: 8.13/10</i>)

HONORS AND AWARDS

Best Ph.D. Student Award Department of Computer Science, University of Houston [URL]	<i>2013</i>
Best Overall Poster Award PhD Research Showcase, Department of Computer Science, University of Houston [URL]	<i>2013</i>
Friends of NSM Graduate Fellowship College of Natural Sciences and Mathematics, University of Houston	<i>2013</i>
Texas Public Education Grant Scholarships University of Houston	<i>2013</i>
NSMAA Scholarship for Graduate Students College of Natural Sciences and Mathematics, University of Houston [URL]	<i>2010, 2011, 2012, 2013</i>
Vietnam Education Foundation Fellowship Grant (<i>\$54,000 scholarship from the U.S. government for the first two years of Ph.D. program</i>) [URL]	<i>2008</i>
Rank 56th, ACM-ICPC World Finals Programming Contest (<i>88 teams chosen for the World Finals among 6,099 teams from 1,756 universities in 82 countries</i>) [URL]	<i>2007</i>

First Prize, ACM-ICPC Regional Programming Contest

2006

Asia region, Hanoi site, Vietnam

Rank 8th, ACM-ICPC Regional Programming Contest

2005

Asia region, Coimbatore site, India

PUBLICATIONS

[P1] INTERACTIVE CAGE GENERATION FOR MESH DEFORMATION [\[URL\]](#)

Binh Huy Le and Zhigang Deng

Proceedings of the ACM SIGGRAPH Symposium on Interactive 3D Graphics and Games (SI3D), Feb 2017, article 3

[P2] REAL-TIME SKELETAL SKINNING WITH OPTIMIZED CENTERS OF ROTATION [\[URL\]](#)

Binh Huy Le and Jessica K. Hodgins

ACM Transactions on Graphics (Proceeding of ACM SIGGRAPH 2016), 35(4), July 2016
(*Highlighted in the SIGGRAPH 2016 Technical Papers Trailer*) [\[URL\]](#)

[P3] SPECTRAL ANIMATION COMPRESSION [\[URL\]](#)

Chao Wang, Yang Liu, Xiaohu Guo, Zichun Zhong, *Binh Le*, and Zhigang Deng

Journal of Computer Science and Technology, 30(3), May 2015, pp. 540-552

[P4] ROBUST AND ACCURATE SKELETAL RIGGING FROM MESH SEQUENCES [\[URL\]](#)

Binh Huy Le and Zhigang Deng

ACM Transactions on Graphics (Proceeding of ACM SIGGRAPH 2014), 33(4), July 2014, article 84

[P5] MARKER OPTIMIZATION FOR FACIAL MOTION ACQUISITION AND DEFORMATION [\[URL\]](#)

Binh Huy Le, Mingyang Zhu, and Zhigang Deng

IEEE Transactions on Visualization and Computer Graphics (TVCG), 19(11), Nov. 2013, pp. 1859-1871
(*Also presented at Symposium on Computer Animation (SCA) 2013*)

[P6] TWO-LAYER SPARSE COMPRESSION OF DENSE-WEIGHT BLEND SKINNING [\[URL\]](#)

Binh Huy Le, and Zhigang Deng

ACM Transactions on Graphics (Proceeding of ACM SIGGRAPH 2013), 32(4), July 2013, article 124

[P7] SMOOTH SKINNING DECOMPOSITION WITH RIGID BONES [\[URL\]](#)

Binh Huy Le and Zhigang Deng

ACM Transactions on Graphics (Proceeding of ACM SIGGRAPH Asia 2012), 31(6), Nov. 2012, article 199

(*Highlighted in the SIGGRAPH Asia 2012 Technical Papers Video Trailer*) [\[URL\]](#)

[P8] LIVE SPEECH DRIVEN HEAD-AND-EYE MOTION GENERATORS [\[URL\]](#)

Binh Huy Le, Xiaohan Ma, and Zhigang Deng

IEEE Transactions on Visualization and Computer Graphics (TVCG). 18(11), Nov. 2012, pp. 1902-1914

[P9] PERCEPTUAL ANALYSIS OF TALKING AVATAR HEAD MOVEMENTS: A QUANTITATIVE PERSPECTIVE [\[URL\]](#)

Xiaohan Ma, *Binh Huy Le*, and Zhigang Deng

Proceedings of the SIGCHI International Conference on Human factors in computing systems (CHI) 2011, pp. 2699-2702

[P10] STYLE LEARNING AND TRANSFERRING FOR FACIAL ANIMATION EDITING [\[URL\]](#)

Xiaohan Ma, *Binh Huy Le*, and Zhigang Deng

Proceedings of the ACM SIGGRAPH/Eurographics Symposium on Computer Animation (SCA) 2009, pp. 114-123

[P11] AN INTERACTIVE GEOMETRIC TECHNIQUE FOR UPPER AND LOWER TEETH SEGMENTATION [\[URL\]](#)

Binh Huy Le, Zhigang Deng, James Xia, Yu-Bing Chang, and Xiaobo Zhou

Proceedings of the 12th International Conference on Medical Image Computing and Computer-Assisted Intervention (MICCAI) 2009, pp. 968-975

PATENTS

[P12] SYSTEMS AND METHODS FOR VIRTUAL ENTITY ANIMATION

Binh Huy Le, and Jessica Hodgins

US patent application: *US20180096510A1* [\[URL\]](#)

[P13] VISUAL PERCEPTION MATCHING COST ON BINOCULAR STEREO IMAGES

Binh Huy Le, Daniel A. Vaquero, and Timo Aho

US patent number: *US9430834B2* [\[URL\]](#)

INVITED TALKS

Real-time Skeletal Skinning with Optimized Centers of Rotation *July 25, 2016*
SIGGRAPH 2016 Technical Paper presentation, Anaheim, CA [\[URL\]](#)

Real-time Skinning and Deformation tutorial *May 26, 2014*
The 27th International Conference on Computer Animation and Social Agents [\[URL\]](#)

Example-based Real-time Skinning Animation: Algorithms and Applications
Disney Research Pittsburgh *May 20, 2014*
Dept. of Electrical Engineering & Computer Science, University of Central Florida *March 24, 2014*
Dept. of Computer Science, University of Massachusetts at Boston *March 3, 2014*

Two-Layer Sparse Compression of Dense-Weight Blend Skinning *July 25, 2013*
SIGGRAPH 2013 Technical Paper presentation, Anaheim, CA [\[URL\]](#)

Marker Optimization for Facial Motion Acquisition and Deformation *July 19, 2013*
ACM SIGGRAPH/Eurographics Symposium on Computer Animation, Anaheim, CA

Smooth Skinning Decomposition with Rigid Bones *December 1, 2012*
SIGGRAPH Asia 2012 technical Paper presentation, Singapore

PROFESSIONAL ACTIVITIES

Program Committee

- ACM SIGGRAPH/Eurographics Symposium on Computer Animation (SCA) 2015, 2016
- IEEE International Conference on Computer Animation and Social Agents (CASA) 2014, 2015, 2016
- ACM SIGGRAPH Conference on Motion in Games (MIG) 2016
- International Symposium on Visual Computing (ISVC) 2015

Paper Review

International Conference and Exhibition on Computer Graphics & Interactive Techniques (SIGGRAPH, SIGGRAPH Asia), Transactions on Graphics (TOG), Computer Graphics Forum (CGF), Symposium on Computer Animation (SCA), Computer Animation and Social Agents (CASA), Pacific Graphics (PG), The Visual Computer (TVCJ), International Symposium on Visual Computing (ISVC), Transactions on Affective Computing (TAC), Computers & Graphics (CAD/CG), Transactions on Human-Machine System (THMS), Graphics Interface (GI), International Journal of Image and Graphics (IJIG), Journal of Virtual Reality and Broadcasting (JVRB), Virtual Reality (VR), International Conference on Multimedia & Expo (ICME), International Conference on Systems, Man, and Cybernetics (SMC)

MEDIA COVERAGES

- Character Animation Technique Produces Realistic Looking Bends at Joints** *July 2016*
EurekAlert! [\[URL\]](#)
- New Method Automates Skeletal Design for Character Animation** *July 2014*
Department of Computer Science, University of Houston news [\[URL\]](#)
- Avatars, Virtual Humans Among Topics Covered at UH Event** *May 2014*
University of Houston news and events [\[URL\]](#)
- Computer Science Recognizes Students for Academic Excellence** *June 2013*
Department of Computer Science, University of Houston news [\[URL\]](#)
- Students Compete in Brain Games** *November 2009*
The Daily Cougar newspaper (official student newspaper of the University of Houston) [\[URL\]](#)

TEACHING EXPERIENCES

Supervisor *2013 - 2014*
Department of Computer Science, University of Houston

- Li Wei (Ph.D. Student, now interning at Google)
Project: Skeleton-Driven High Quality Cage Generation From A Single Mesh
- Chrysanthi C. Ntina (M.Sc. Student, now at TripAdvisor)
Thesis: Stereo Calibration of Depth Sensors with 3D Correspondences and Smooth Interpolants
(Best M.Sc. Thesis Student Award of the Department in 2013)

Guest Lecturer: COSC 6356 - Computer Animation and Simulation *Spring 2012*
Department of Computer Science, University of Houston

Programming Contest Coach

- Coached team UH Cougar (University of Houston) at the ACM-ICPC South Central USA Regional Programming Contest 2009 (ranked 17/70) [\[URL\]](#)
- Coached 5 teams for Vietnam National University (Hanoi) at the ACM-ICPC Asia Regional Programming Contest, Danang site, Vietnam (ranked 3/75, 7/75, 11/75, 25/75, and 26/75) [\[URL\]](#)
- Co-coached Vietnam National Team for the International Olympiad in Informatics (IOI) 2004 to 2008 (Abbreviations: SM = silver medal, BM = bronze medal)
 - 2008: Son Nguyen (SM) [\[URL\]](#)
 - 2007: Hung Doan Manh (SM, now at Facebook), Tien Nguyen Hoanh (BM, now at Microsoft), Duc Ngo Minh (BM), Hoang Le Bao (BM) [\[URL\]](#)
 - 2006: Tuan Khuc Anh (SM, now at Facebook), Khanh Nguyen Tran Nam (BM, now at Microsoft), Tung Dang Thanh (BM) [\[URL\]](#)
 - 2005: Hoang Anh Nguyen Bich (SM), Hai Minh Pham (BM, now at Uber), Hoang Vu Dang (BM), Duc Dung Nguyen (BM, now at Google) [\[URL\]](#)
 - 2004: Pham Huu Thanh (BM), Nguyen Duy Khuong (BM), Le Manh Ha (BM) [\[URL\]](#)