Yuting Ye

CONTACT
INFORMATION

E-mail: yutingye.public@gmail.com
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WORK
EXPERIENCES

Oculus Research   Menlo Park, CA
Research Scientist, Manager: Robert Wang   July 2015 - present
- Hand tracking and object manipulation in VR.

Industrial Light & Magic   San Francisco, CA
R&D Engineer, Supervisor: Cary Phillips   January 2012 - July 2015
- Lead developer on advanced rigging tools for animators.
- PI on future animation project roadmap (relocated to Singapore for 6 months).
- Lead developer on facial performance retargeting tools for digital creatures.
- Developer of a real-time facial tracking and retargeting system.

EDUCATION

Georgia Institute of Technology   Atlanta, Georgia, USA
Ph.D. in Computer Science (GPA 4.0)   August 2007 - December 2011
- Dissertation: "Simulation of Characters with Natural Interactions"
- Advisor: Dr. C. Karen Liu

University of Southern California   Los Angeles, California, USA
Ph.D. student in Computer Science (GPA 4.0)   August 2006 - May 2007
- Advisor: Dr. C. Karen Liu

University of Virginia   Charlottesville, Virginia, USA
M.CS. in Computer Science (GPA 3.73)   August 2004 - May 2006
- Master's project: "A Momentum-Based Bipedal Balance Controller"
- Advisor: Dr. David C. Brogan

Peking University   Beijing, China
B.S. in Computer Science (GPA 3.66)   September 2000 - June 2004
- Bachelor thesis: "A $2D$ Vector Graphics Editing System With Elaborate Rendering"
- Advisor: Dr. Guoping Wang

PUBLICATIONS

D. Zimmermann, S. Coros, **Y. Ye**, R. Sumner, M. Gross. 2015. "Hierarchical Planning and Control For Complex Motor Task". In *SCA '15 Proceedings of the ACM SIGGRAPH/Eurographics Symposuim on Computer Animation.*

S. Grabli, K. Sprout, **Y. Ye**. 2015. "Feature-based Texture Stretch Compensation for 3D Meshes". In *ACM SIGGRAPH Talks.*

R. Rose, **Y. Ye**. 2015. "Multi-resolution Geometric Transfer for Jurassic World". In *ACM SIGGRAPH Talks.*

H. Li, J. Yu, **Y. Ye**, C. Bregler. 2013. "Realtime facial animation with on-the-fly correctives". *ACM Transactions on Graphics (SIGGRAPH)* 32(4). Article 42.

K. Bhat, R. Goldenthal, **Y. Ye**, R. Mallet, M. Koperwas. 2013. "High Fidelity Facial Animation Capturing and Retargeting With Contours". In *SCA '13 Proceedings of the ACM SIGGRAPH/Eurographics Symposuim on Computer Animation.*

S. Ha, **Y. Ye**, C. K. Liu. 2012. "Falling and Landing Motion Control for Character Animation". *ACM Transactions on Graphics (SIGGRAPH Asia)* 31(5). Article 155.

Y. Ye, C. K. Liu. 2012. "Synthesis of detailed hand manipulations using contact sampling". *ACM*

Transactions on Graphics (SIGGRAPH) 31(4) Article 41.

Y. Ye, C. K. Liu. 2010. "Optimal feedback control for character animation using an abstract model". *ACM Transactions on Graphics (SIGGRAPH)* 29(4) Article 74.

Y. Ye, C. K. Liu. 2010. "Synthesis of responsive motion using a dynamic model". *Computer Graphics Forum (Eurographics)* 29(2) Pages 555-562.

S. Jain, **Y. Ye**, C. K. Liu. 2009. "Optimization-based interactive motion synthesis". *ACM Transactions on Graphics (TOG)* 28(1) Article 10.

Y. Ye, C. K. Liu. 2008. "Animating responsive characters with dynamic constraints in near-unactuated coordinates". *ACM Transactions on Graphics (SIGGRAPH Asia)* 27(5) Article 112.

S. Jain, **Y. Ye**, C. K. Liu. 2007. "Optimization-based interactive motion synthesis for virtual characters". In *ACM SIGGRAPH sketches* Article 39.

RESEARCH EXPERIENCES

Georgia Institute of Technology   Atlanta, GA
Graduate Research Assistant, Advisor: Dr. C. Karen Liu   August 2007 - December 2011
- Developed optimal control algorithms for balance control, motion tracking, and motion planning of human locomotion and dexterous hand manipulations.
- Developed both linear and nonlinear dimensionality reduction techniques for learning and synthesizing responsive behaviors of human characters in a simulated environment.
- Assisted in writing two NIH proposals.

USC Information Sciences Institute (ISI)   Marina del Rey, CA
Research Intern, Advisor: Dr. Stacy Marsella   May 2007 - August 2007
- Integrated physics-based balance and tracking control into a kinematics-based control system.

University of Southern California   Los Angeles, CA
Graduate Research Assistant, Advisor: Dr. C. Karen Liu   August 2006 - May 2007
- Developed and integrated a numerical optimization framework with physics-based simulation for high-level controls of virtual characters.

University of Virginia   Charlottesville, VA
Graduate Research Assistant, Advisor: Dr. David C. Brogan   August 2004 - May 2006
- Developed a balance controller for articulated characters through angular momentum regulation.
- Developed a hierarchical neural network to simply a complex dynamic system.

PROFESSIONAL ACTIVITIES

Program Committee
Symposium on Computer Animation (SCA) 2015, 2014

Paper Reviewer for Conferences
SIGGRAPH, SIGGRAPH Asia, Eurographics, Pacific Graphics, Motion in Games, Computer Graphics International

Paper Reviewer for Journals
ACM Transactions on Graphics, Computer Graphics Forum, Virtual Reality Software and Technology, Computer Animation and Virtual World

Editor
Papers preview video, SIGGRAPH 2008

SKILLS

Languages: C/C++, Python, LaTeX.
APIs: Autodesk Maya, Open Dynamic Engine (ODE), Bullet physics engine, Eigen library, Ceres solver, MOSEK, SNOPT, gnuplot.
Softwares: MATLAB, Perforce, Adobe Photoshop, Illustrator, and Premiere, Vicon IQ and Blade.
Platforms: Mac OSX, Linux, Windows.