

# Jack M. Wang

jack.m.wang@gmail.com • +1 650 691 3523 • <http://www.dgp.toronto.edu/~jmwang>

## RECENT WORK EXPERIENCE

**University of Hong Kong**, Hong Kong, China  
Assistant Professor, Department of Computer Science  
Teaching: COMP3314 Machine Learning, COMP3271 Computer Graphics  
Nov 2013 – Aug 2015

**Stanford University**, Stanford, CA  
Postdoctoral Researcher, Computer Science & Bioengineering  
Jan 2011 – Dec 2013

## EDUCATION

**University of Toronto**, Toronto, Canada  
Ph.D., M.Sc. in Computer Science  
Thesis: Locomotion Synthesis Methods for Humanoid Characters  
Advisers: Aaron Hertzmann, David J. Fleet  
Research areas: Computer graphics, machine learning, robotics.  
Sep 2004 – Nov 2010

**University of Waterloo**, Waterloo, Canada  
B.Math. in Computer Science with Pure Mathematics Minor  
Graduated “With Distinction - Dean’s Honours List”  
Sep 1999 – Jun 2004

## PUBLICATIONS

Dorn TW, **Wang JM**, Hicks JL, Delp SL (2015) Predictive simulation generates human adaptations during loaded and inclined walking. *PLoS ONE* 10(4).

Mordatch I, **Wang JM**, Todorov E, Koltun V (2013) Animating human lower limbs using contact-invariant optimization. *ACM Trans. Graph.* 32 (Proc. SIGGRAPH Asia), 203:1-203:8.

**Wang JM**, Hamner SR, Delp SL, Koltun V (2012) Optimizing locomotion controllers using biologically-based actuators and objectives. *ACM Trans. Graph.* 31 (Proc. SIGGRAPH), 25:1-25:11.

Levine S, **Wang JM**, Haraux A, Popović, Koltun V (2012) Continuous character control with low-dimensional embeddings. *ACM Trans. Graph.* 31 (Proc. SIGGRAPH), 28:1-28:10.

**Wang JM**, Fleet DJ, Hertzmann A (2010) Optimizing walking controllers for uncertain inputs and environments. *ACM Trans. Graph.* 29 (Proc. SIGGRAPH), 73:1-73:8.

**Wang JM**, Fleet DJ, Hertzmann A (2009) Optimizing walking controllers. *ACM Trans. Graph.* 28 (Proc. SIGGRAPH Asia), 168:1-168:8.

**Wang JM**, Fleet DJ, Hertzmann A (2008) Gaussian process dynamical models for human motion. *IEEE Trans. Pattern Analysis and Machine Intelligence (PAMI)* 30(2), pp. 283-298. **(400+ citations)**

**Wang JM**, Fleet DJ, Hertzmann A (2007) Multifactor Gaussian process models for style-content separation. In *Proc. 24th Int. Conf. Machine Learning (ICML)*, pp. 975-982.

**Wang JM**, Fleet DJ, Hertzmann A (2006) Gaussian process dynamical models. In *Adv. Neural Information Processing Systems 18 (NIPS)*, pp. 1441-1448. **(200+ citations)**

Kolliopoulos A, **Wang JM**, Hertzmann A (2006) Segmentation-based 3D artistic rendering. In *Proc. 17th Eurographics Symposium on Rendering (EGSR)*, pp. 361-370.

## PROFESSIONAL ACTIVITIES

**IEEE Robotics & Automation Society**  
Founding Member – Technical Committee on Human Motion Understanding  
2014 – Present

**Annual Conf. European Association for Computer Graphics (Eurographics)**  
State of the Arts Report Program Committee  
2015

	<b>ACM SIGGRAPH/Eurographics Symposium on Computer Animation (SCA)</b>	
	Poster Chair	2014
	Program Committee	2011 – 2014
	<b>Annual Conf. Neural Information Processing Systems (NIPS)</b>	
	Reviewer	2010, 2012, 2014 – 2015
	<b>International Conference on Machine Learning (ICML)</b>	
	Reviewer	2008
	Program committee member for Pacific Graphics (2011–2013, 2015), Inter. Conf. Computer Animation and Social Agents (2014–2015), ACM SIGGRAPH Conf. Motion in Games (2014).	
	Frequent tertiary reviewer for ACM SIGGRAPH, ACM SIGGRAPH Asia conferences, occasional reviewer for many conferences and journals in computer graphics, machine learning, computer vision, robotics, and computational biomechanics.	
<b>ACADEMIC HONORS</b>	OpenSim Fellow	2014 – present
	Outstanding Talk Award, Biomechanical Engineering Conference at Stanford	2012
	Robert Lansdale/Okino Computer Graphics Fellowship	2008
	NSERC Summer Program in Taiwan Supplement	2008
	Canada Graduate Scholarship	2006 – 2008
	NSERC Postgraduate Scholarship	2004 – 2006
	University of Toronto Fellowship	2004 – 2006
	Nortel Networks Undergraduate Scholarship	1999 – 2004
<b>SELECTED TALKS</b>	<b>Simulating Human Locomotion: Optimization, Uncertainty, and Biomechanics</b>	
	University of Hong Kong, Hong Kong, China	Jun 2013
	Intel Research, Santa Clara, CA	Mar 2013
	Simon Fraser University, Vancouver, Canada	Mar 2013
	University of California, Los Angeles, Los Angeles, CA	Feb 2013
	University of Waterloo, Waterloo, Canada	Feb 2013
	University of Toronto, Toronto, Canada	Feb 2013
	<b>Optimizing Locomotion Controllers Using Biologically-Based Actuators and Objectives</b>	
	ICRA Workshop on Natural Motion Understanding, Hong Kong, China	May 2014
	Industrial Light & Magic, San Francisco, CA	Nov 2012
	SIGGRAPH 2012, Los Angeles, CA	Aug 2012
<b>OTHER EXPERIENCE</b>	<b>Microsoft Research</b> , Redmond, WA	
	Research Intern, Interactive Visual Media Group	Jun 2007 – Aug 2007
	<b>Alias Systems (now Autodesk)</b> , Toronto, Canada	
	Software Developer	May 2003 – Aug 2003
	<b>Mitra Imaging (now Agfa)</b> , Waterloo, Canada	
	Software Developer	Sep 2002 – Dec 2002, May 2003 – Aug 2003
	<b>Research In Motion (now BlackBerry)</b> , Waterloo, Canada	
	Firmware Developer	Jan 2002 – Apr 2002, May 2002 – Aug 2002
<b>CITIZENSHIP</b>	Canadian	

## REFERENCES

### **Aaron Hertzmann**

Senior Research Scientist  
Adobe Research, San Francisco, CA  
hertzman@adobe.com

### **David J. Fleet**

Professor of Computer Science  
University of Toronto, Toronto, Canada  
fleet@cs.toronto.edu • +1 (416) 946-8485

### **Vladlen Koltun**

Principal Researcher  
Intel Labs, Santa Clara, CA  
vladlen.koltun@intel.com

### **Scott L. Delp**

Professor of Bioengineering and Mechanical Engineering  
Stanford University, Stanford, CA  
delp@stanford.edu • +1 (650) 725-4009