

TILKE JUDD

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INTERESTS

My interests lie in solving real-world problems related to image-based computer graphics and vision, and human visual perception. In particular, I am interested in understanding the way people look at and interact with visual data, and finding ways to harness the tools of machine learning and large image databases for applications such as photo editing, browsing, tagging and searching.

EXPERIENCE**MIT RESEARCH ASSISTANT AND PHD CANDIDATE, CAMBRIDGE, MA — SEPT 2004 - PRESENT**

Conducted research at the Computer Science Artificial Intelligence Laboratory with advisors Fredo Durand and Antonio Torralba with the goal to understand where people look in images. I used machine learning to learn models that predict where people fixate on images. Previously worked on non-photorealistic line drawings.

R&D ENGINEER, INDUSTRIAL LIGHT AND MAGIC, SAN FRANCISCO, CA — SUMMER INTERNSHIP 2009

Enhanced the software tools that 3D graphic artists use to create special effects. Specifically, redesigned the interface and interaction methods of the curve editor for the in-house software program similar to Maya. Collaborated effectively with artists and engineers.

SOFTWARE ENGINEER, GOOGLE, ZURICH, SWITZERLAND — SUMMER INTERNSHIP 2007

Prototyped iMove gadget for personalized public transportation information with Maps and Transit teams.

GRAPHICS INSTRUCTOR, COLUMBIA UNIVERSITY SUMMER SCHOOL, NY, NY — SUMMER 2006

Designed and co-taught the 4-week intensive Computer Graphics through Game Programming course for Columbia University's Summer Program for High School Students.

UNDERGRADUATE RESEARCH ASSISTANT, MIT MEDIA LAB, CAMBRIDGE, MA — 1999-2003

Worked with graduate student Wendy Ju to prototype CounterActive, an interactive kitchen countertop recipe program, and Origami Table, a workbench that provides instructions and feedback based on correct origami folds. Gave demos to corporate sponsors and presented at CHI and SIGGRAPH conferences in 2001.

INSTRUCTOR, MIT CHINA EDUCATIONAL TECHNOLOGY INITIATIVE, GUANGZHOU — SUMMER 2001

Taught computer skills and software to students at the Middle School attached to Zhongshan University.

EDUCATION

Massachusetts Institute of Technology, Cambridge, MA
Ph.D. candidate in Computer Science (Graphics), June 2011, GPA 4.6/5
Masters of Science, Computer Science, Feb 2007

École Polytechnique, Palaiseau, France
International Program, Computer Science Major, Sept 2003 to April 2004

Massachusetts Institute of Technology, Cambridge, MA
Bachelors of Science in Mathematics, June 2003, GPA 4.7/5

Cambridge University, Cambridge, England
Junior Year Abroad, Read Part IB Mathematics Tripos, Sept 2001 to June 2002

AWARDS

Xerox Graduate Fellowship 2008-2009
NSF Graduate Research Fellowship 2005-2008
Akamai Presidential Graduate Fellowship 2004-2005
Shell Personal Development Award 2002
Edward J. Bloustein Scholar 2000
National Merit Scholar Commended Student 1999

PUBLICATIONS

Judd, Tilke, **Understanding and Predicting Where People Look In Images**, Ph.D. thesis in Computer Science, Massachusetts Institute of Technology, Cambridge, MA, June 2011

Judd, T, Durand, F., Torralba, A., **Fixations on Low-Resolution Images**, Journal of Vision, 2011.

Judd, T, Ehinger, K, Durand, F, Torralba, A. **Learning to Predict Where People Look**, Proceedings of the International Conference on Computer Vision (ICCV) 2009.

Judd, T., Durand, F., Adelson, T. **Apparent Ridges for Line Drawing**. Proceedings of ACM Siggraph 2007

Judd, Tilke. **Apparent Ridges for Line Drawing**. Masters thesis in Computer Science, Massachusetts Institute of Technology, Cambridge, MA, Jan 2007

Ju, W., R. Hurwitz, T. Judd, B. Lee. **CounterActive: An Interactive Cookbook for the Kitchen Counter**. Proceedings of SIGCHI 2001, Short Papers and Abstracts, Seattle WA, April 2001. p 269

Ju, W., L. Bonanni, R Fletcher, R. Hurwitz, T. Judd, J. Yoon E.R. Post, M. Reynolds. **Origami Desk**. Exhibited SIGGRAPH 2001, Los Angeles CA. SIGGRAPH Conference Abstracts and Applications, August 2001, p.280

Judd, Tilke. **The JPEG Compression Algorithm**. The Massachusetts Institute of Technology Undergraduate Mathematics Journal. Cambridge, MA, Vol 5, p.119

SERVICE

Reviewer for Siggraph, Eurographics, PAMI, ICCV, Journal of Vision, The Visual Computer, SIBGRAPI, Transactions on Applied Perception, Journal of Computer Science and Technology (JCST), IET Image Processing, UIST

SKILLS

Programming languages in order of experience: Matlab, C/C++, Java, Javascript
Familiar with Unix, Linux and Windows operating systems
Fluent in English and French

LEADERSHIP

Event Lead for Graduate Women at MIT

- Leadership Conference November 2010
- Empowerment Conference March 2011

Co-organized workshop "Celebrating Graduate Women at MIT" in May 2010

Led a team of graduate students to create winning films in CampusMovieFest competition 2005, '06, '07, '08

Co-organized the corporate sponsored Total Sailing Regatta at MIT 2006

MIT Ballroom Competition Committee member 2003, '05, '07, '08

ACTIVITIES

Competitive Latin and Ballroom Dancing, Digital Filmmaking, Sailing, Cello and Voice, Unicycle riding

NATIONALITIES

American, Dutch, Canadian