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RESEARCH INTERESTS

Human-Computer Interaction, Physical & Tangible Computing,
Prototyping & Design Processes, User Interface Software Tools

EDUCATION

- 09/2004 - PRESENT Stanford University, Stanford, CA
PHD candidate in *Computer Science*
Advisor: Professor Scott R. Klemmer
- 12/2002 University of Pennsylvania, Philadelphia, PA
MSE in *Computer and Information Science*
BSE in *Digital Media Design*, summa cum laude
BA in *Communication*, summa cum laude, with minor in *Fine Arts*

EMPLOYMENT

- 04/2008 - 06/2008 Microsoft Research, Redmond, WA
Research Intern
Research with Merrie Morris, Andrew Wilson, and Hrvoje Benko.
Designed, fabricated, and programmed large multi-user multi-touch surface for design team tasks.
- 09/2004 - PRESENT Stanford University, Stanford, CA
Graduate Research Assistant & Course Assistant
Research with Professor Scott R. Klemmer. Course assistant for Professors Terry Winograd, Scott R. Klemmer, and John C. Mitchell.
- 01/2004 - 09/2004 IUT Montreuil, University of Paris-8, Montreuil, FRANCE
Research Engineer
With Professor Catherine Pelachaud. Developed and implemented a framework to enable emotional displays and personality in nonverbal gesturing behavior of Embodied Conversational Agents.
- 01/2003 - 12/2003 Contexterrior Media, Amsterdam, NETHERLANDS
Principal
Managed graphic design, distribution, and promotion of independent niche record label. Planned, designed, programmed online label textone.org. Recording artist and DJ.
- 06/2001 - 08/2001 University of Rome "La Sapienza", Rome, ITALY
Research Assistant
With Professor Catherine Pelachaud. Developed and implemented a system to procedurally generate gestural animation for embodied agents according to the MPEG-4 Body Animation Parameter standard.
- 01/2001 - 12/2002 University of Pennsylvania, Philadelphia, PA
Undergraduate Research Assistant & Teaching Assistant
Research with Professor Norm Badler in the Center for Human Modeling and Simulation. Teaching assistant for Professors Badler, Joshua Mosley and Steven Lane in Computer Science; for Sharka Hyland in Fine Arts.

TEACHING EXPERIENCE

- FALL 2007
STANFORD UNIVERSITY CS242: Programming Languages
Course Assistant for Professor John C. Mitchell
- SPRING 2006
STANFORD UNIVERSITY CS294H: Integrating Physical and Digital Interactions
Course Assistant for Professor Scott R. Klemmer
- WINTER 2006
STANFORD UNIVERSITY CS247: Human Computer Interaction Design Studio
Course Assistant for Professor Scott R. Klemmer
- SPRING 2005
STANFORD UNIVERSITY CS378: Phenomenological Foundations of Cognition, Language, and Computation
Course Assistant for Professor Terry Winograd
- FALL 2002
U. OF PENNSYLVANIA CSE399: Special Topics in Robotics and Computer Animation
Teaching Assistant for Professor Steven Lane
- SPRING 2001
U. OF PENNSYLVANIA CSE377: Virtual World Design
Teaching Assistant for Professors Norm Badler and Joshua Mosley
- FALL 2001 + SPRING 2002
U. OF PENNSYLVANIA FNAR265: Digital Imaging
Software Tutor (Photoshop, Illustrator, Quark) for Sharka Hyland

REFEREED PUBLICATIONS

- CONFERENCE PAPERS **Hartmann, Björn**, Loren Yu, Abel Allison, Yeonsoo Yang, and Scott R. Klemmer. Design as Exploration: Creating Interface Alternatives through Parallel Authoring and Runtime Tuning. In Proceedings of UIST 2008: *ACM Symposium on User Interface Software and Technology*. Monterey, CA, 2008.
- Hartmann, Björn**, Leslie Wu, Kevin Collins, and Scott R. Klemmer. Programming by a Sample: Rapidly Creating Web Applications with d.mix. In Proceedings of UIST 2007: *ACM Symposium on User Interface Software and Technology*. Newport, RI, 2007.
- Hartmann, Björn**, Leith Abdulla, Manas Mittal and Scott R. Klemmer. Authoring Sensor Based Interactions Through Direct Manipulation and Pattern Matching. In Proceedings of CHI 2007: *ACM Conference on Human Factors in Computing Systems*. San Jose, CA, 2007. (BEST PAPER AWARD)
- Hartmann, Björn**, Scott R. Klemmer, Michael Bernstein, Leith Abdulla, Brandon Burr, Avi Robinson-Mosher, and Jennifer Gee. Reflective physical prototyping through integrated design, test, and analysis. In Proceedings of UIST 2006: *ACM Symposium on User Interface Software and Technology*. Montreux, Switzerland, 2006. (BEST PAPER AWARD)
- Klemmer, Scott R., **Björn Hartmann**, and Leila Takayama. How Bodies Matter: Five Themes for Interaction Design. In Proceedings of DIS 2006: *ACM Conference on the Design of Interactive Systems*. State College, PA, 2006.
- Hartmann, Björn**, Maurizio Mancini, and Catherine Pelachaud. Formational Parameters and Adaptive Prototype Instantiation for MPEG-4 compliant Gesture Synthesis. In Proceedings of Computer Animation. Geneva, Switzerland, June, 2002.
- JOURNAL ARTICLES Buisine, Stéphanie, **Björn Hartmann**, Maurizio Mancini, and Catherine Pelachaud. Conception et Evaluation d'un Modèle d'Expressivité pour les Gestes des Agents. *Revue en Intelligence Artificielle RIA édition spécial "Interaction Emotionnelle"*, 2006.
- MAGAZINE ARTICLES **Hartmann, Björn**, Scott Doorley, and Scott R. Klemmer. Hacking, Mashing, Gluing: Understanding Opportunistic Design. In *IEEE Pervasive Computing* 7(3), 2008.

POSTERS & DEMONSTRATIONS

Zhang, Haiyan, and **Björn Hartmann**. Extending Everyday Play. In *Extended Abstracts of CHI 2007: ACM Conference on Human Factors in Computing Systems*. San Jose, CA, 2007. Demonstration.

Hartmann, Björn, Scott Doorley, Sohyeong Kim, and Parul Vora. Wizard of Oz Sketch Animation for Experience Prototyping. In *Adjunct Proceedings of Ubicomp 2006: Ubiquitous Computing*. Orange County, CA, September 17-21, 2006. Video.

Hartmann, Björn, Meredith Ringel Morris, and Anthony Cassanego. Reducing Clutter on Tabletop Groupware Systems with Tangible Drawers. In *Adjunct Proceedings of Ubicomp 2006: Ubiquitous Computing*. Orange County, CA, 2006. Poster.

Hartmann, Björn, Scott R. Klemmer, Michael Bernstein, and Nirav Mehta. d.tools: Visually Prototyping Physical UIs through Statecharts. In *Conference Supplement to UIST 2005: ACM Symposium on User Interface Software and Technology*. Seattle, WA, October 23-26, 2005. Demonstration.

Carlile, Jennifer and **Björn Hartmann**. Oroboro: a collaborative music controller with interpersonal haptic feedback. In *Proceedings of NIME 2005: New Interfaces for Musical Expression*. Vancouver, BC: ACM Press. pp. 250-51, May 26-28, 2005. Demonstration.

Hartmann, Björn, Maurizio Mancini, Stéphanie Buisine, and Catherine Pelachaud. Design and Evaluation of Expressive Gesture Synthesis for Embodied Conversational Agents. In *Proceedings of AAMAS 2005*. Utrecht, Netherlands, July, 2005. Poster.

Mancini, Maurizio, **Björn Hartmann**, Catherine Pelachaud, Amaryllis Raouzaïou, and Kostas Karpouzis. Expressive Avatars in MPEG-4. In *Proceedings of ICME, 2005*. Poster.

Mancini, Maurizio, **Björn Hartmann**, and Catherine Pelachaud. Gesture Expressivity in Embodied Conversational Agents. In *Proceedings of 2nd Conference of the International Society for Gesture Studies, ISGS 2005*. Lyon, France, May, 2005. Poster.

WORKSHOP PAPERS

Klemmer, Scott R., **Björn Hartmann**, and Leila Takayama. Interaction Design for Active Bodies: Two Themes. In *Proceedings of CHI 2006: ACM Conference on Human Factors in Computing Systems: Workshop on What is the Next Generation of Human-Computer Interaction?* Montréal, Quebec, April, 2006.

Hartmann, Björn, Maurizio Mancini, and Catherine Pelachaud. Implementing Expressive Gesture Synthesis for Embodied Conversational Agents. In *Proceedings of Gesture Workshop 2005*. Springer, 2006.

Hartmann, Björn, Maurizio Mancini, and Catherine Pelachaud. Towards Affective Agent Action: Modelling Expressive ECA Gestures. In *Proceedings of IUI 2005 Workshop on Affective Interactions*. San Diego, CA, January, 2005.

UNREFEREED PUBLICATIONS

Hartmann, Björn, Scott R. Klemmer, and Michael Bernstein. Prototypes Enable Collaboration in Product Design – Let's Help Designers Build More of Them, Boaster Paper in *Human Computer Interaction Consortium Winter Workshop*. 2006: Fraser, Colorado.

BOOK CHAPTER

Hartmann, Björn, Netlabels and the Adoption of Creative Commons Licensing in the Online Electronic Music Community, in *International Commons at the Digital Age*. Romilat: Paris, France, 2004.

TALKS

PRESENTATIONS

Redrawing the line between CPU and MCU.

Sketching in Hardware, Providence, RI, 27 July 2008.

The intersection between physical computing and web services.

O'Reilly Foo Camp, Sebastopol, CA, 13 July 2008.

Enlightened Trial and Error.

University of Washington, Seattle, WA, 30 April 2008.

Enlightened Trial and Error.

MX Conference, San Francisco, CA, 22 April 2008.

Design as Exploration.

Adobe Systems, San Francisco, CA, 10 March 2008.

Enlightened Trial and Error.

UC Berkeley Design Futures lecture series, Berkeley, CA, 28 February 2008.

Enlightened Trial and Error.

University of Pennsylvania, Philadelphia, PA, 25 February 2008.

Prototypes and Mash-Ups: Tool Support for Rapid Off-the-Desktop Interaction Design.

Frog Design, San Francisco, CA, 21 May 2007.

Prototypes and Mash-Ups: Tool Support for Rapid Off-the-Desktop Interaction Design.

UC Berkeley IEOR 170 guest lecture, Berkeley, CA, 7 February 2007.

Browse-Mash-Remix: Tools for rewriting the web.

Web Monday, Cooley Godward Kronish, Palo Alto, CA, 29 January 2006.

Prototypes and Mash-Ups: Tool Support for Rapid Off-the-Desktop Interaction Design.

Yahoo! Research, Berkeley, CA, 10 November 2006.

Prototyping Know-How: Rapidly prototyping active objects.

IDEO, Palo Alto, CA, 06 November 2006.

Reflective physical prototyping through integrated design, test, and analysis.

IBM Almaden Research Center, San Jose, CA, 25 October 2006.

Taking Mash-Ups beyond the Browser.

Silicon Valley Code Camp, Los Altos Hills, CA, 07 October 2006.

Ubiquitous Computing Mash-Ups. Stanford BarCamp, Stanford, CA, 27 August 2006.

Beyond APIs for buttons and sliders: Prototyping with integrated design, test and analysis.

Sketching in Hardware Workshop, Dearborn, MI, 25 June 2006.

d.tools - Rapid Interaction Prototyping for Information Appliances, Stanford Computer Forum,

Human Computer Interaction Workshop, Stanford, CA, May 2005.

PANELS

Thomas Dreier, Armin Medosch, Till Jaeger, Christiane Asschenfeldt, Lawrence Lessig, Michael Grob, **Björn Hartmann**. *Launch Panel for Creative Commons Germany.* Wizards of OS Conference 3, Berlin, June 2004.

Volker Grassmuck, Kristin Thomson, Wendy Selzer, **Björn Hartmann**, Karsten Kinsat.

Compensation Decentral Panel at Free Bitflows Conference, Vienna, June 2004.

ADVISING

SUMMER 2008

Anthony Ricciardi, Timothy Cardenas, Sean Follmer (Undergraduate)

SUMMER 2007

Loren Yu (Undergraduate) — CRA Outstanding Undergraduate Honorable Mention

SUMMER 2006

Manas Mittal (Undergraduate) — now at MIT Media Lab

SUMMER 2005

Michael Bernstein (Undergraduate) — now at MIT CSAIL

SPRING 2005

Nirav Mehta (Master's) — now at VMware

AWARDS AND HONORS

- 2007 CHI Conference Best Paper Award
- 2006 UIST Conference Best Paper Award
- 2006-2009 Stanford Graduate Fellowship
- 2006 Stanford Centennial Teaching Assistant Award
- 2004-2006 Stanford School of Engineering Fellowship
- 2002 Phi Beta Kappa honor society
- 1997-2002 University of Pennsylvania Dean's List

COMPETITIONS

Color Field Camera: Best Flickr Project, Yahoo! Open Hack Day, Sunnyvale, CA, 1 October, 2006.

d.tools: Third place, Microsoft Research Silicon Valley RoadShow (Student Nominated Award). Mountain View, CA, 2 May, 2006.

PROFESSIONAL ACTIVITIES

- PROGRAM COMMITTEE IUI 2009, TABLETOP 2008, UBICOMP 2008 DEMOS
- REFEREE IEEE SOFTWARE 2008, CSCW2008, CHI 2005, 2007, 2008, IUI 2008, UIST 2005-2008, GI 2005, 2007, NIME 2005, GMOD 2005, GI 2005, ADS 2004, AAMAS 2004, SIGGRAPH 2004, CASA 2004, SCA 2004
- STUDENT VOLUNTEER CHI 2007 (PC MEETING), IUI 2005

MEDIA COVERAGE

Igoe, Tom. *Making Things Talk*. O'Reilly, 2008. (Discusses Exemplar).

Virtel, Martin, Qualität durch Basteln, *Financial Times Deutschland*, February 23, 2006.

Roettgers, Janko, Labels ohne Platten - Unabhängige Internet-Plattformen werden erwachsen, 2004. *WDR3* (German Public Radio Station).

Schenker, Jennifer L., New copyright grants artists greater license, *International Herald Tribune*, June 14, 2004.

MISCELLANEOUS

Recording artist for the following record labels: Background, Camomille, Mille Plateaux, Pokerflat, Regular, Textone, Tuning Spork. Editor-in-Chief for Ambidextrous Magazine, Stanford's Journal of Design. Designer of public interactive art installations with Digital Dacha.