

Curriculum Vitae – David Lindlbauer

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Personal details

Birthday March 6th 1986
Citizenship Austria

Education

PhD candidate | Teaching and Research Assistant
Technische Universität Berlin - Computer Graphics Group
Berlin, Germany, since 11/2014
Advisor: Prof. Marc Alexa

PhD candidate | Teaching and Research Assistant
Technische Universität Berlin - Mobile and Physical Interaction Group
Berlin, Germany, 01/2014 – 11/2014
Advisor: Prof. Jörg Müller (now Aarhus University)

PhD candidate | Teaching and Research Assistant
University of Applied Sciences Upper Austria Campus Hagenberg - Media Interaction Lab
Hagenberg, Austria, 11/2012 – 12/2013
Advisor: Prof. Michael Haller

University of Applied Sciences Upper Austria, Campus Hagenberg
Program Interactive Media, Master of Science
2010 – 2012, Graduated with high distinction.
Master's thesis: *Perceptual Grouping of Digital Sketches*.
Advisor: Prof. Michael Haller

University of Waterloo, Ontario, Canada
Term abroad, 05/2012 – 10/2012
Advisors: Prof. Mark Hancock, Prof. Stacey Scott

University of Applied Sciences Upper Austria, Campus Hagenberg
Media Technology and Design, Bachelor of Science
2006 – 2009, Graduated with distinction.
Bachelor's thesis: *The OpenSocial API*.
Advisor: FH-Prof. DI Rimbart Rudisch-Sommer

Publications

Conference papers (fully refereed)

- [C.12] *HeatSpace: Automatic Placement of Displays by Empirical Analysis of User Behavior*.
A. Fender, **D. Lindlbauer**, P. Herholz, M. Alexa, J. Müller
UIST 2017, Quebec, Canada
- [C.11] *Changing the Appearance of Real-World Objects by Modifying Their Surroundings*
D. Lindlbauer, J. Müller, M. Alexa
CHI 2017, Denver, CO, USA.
- [C.10] *Changing the Appearance of Physical Interfaces Through Controlled Transparency*.
D. Lindlbauer, J. Müller, M. Alexa
UIST 2016, Tokyo, Japan.
- [C.9] *Combining Shape-Changing Interfaces and Spatial Augmented Reality Enables Extended Object Appearance*.
D. Lindlbauer, J.E. Grønbæk, M. Birk, K. Halskov, M. Alexa, J. Müller
CHI 2016, San Jose, CA, USA.

- [C.8] *Influence of Display Transparency on Background Awareness and Task Performance.*
D. Lindlbauer, K. Liliya, R. Walter, J. Müller
 CHI 2016, San Jose, CA, USA. **Best Paper Honorable Mention Award**
- [C.7] *GelTouch: Localized Tactile Feedback Through Thin, Programmable Gel.*
 V. Miruchna, R. Walter, **D. Lindlbauer**, M. Lehmann, R. von Klitzing, J. Müller
 UIST 2015, Charlotte, North Carolina, USA. **Best Paper Honorable Mention Award**
- [C.6] *Creature Teacher: A Performance-Based Animation System for Creating Cyclic Movements.*
 A. Fender, J. Müller, **D. Lindlbauer**
 SUI 2015, Los Angeles, California, USA.
- [C.5] *Analyzing Visual Attention During Whole Body Interaction with Public Displays.*
 R. Walter, A. Bulling, **D. Lindlbauer**, M. Schuessler, J. Müller
 UBICOMP 2015, Osaka, Japan. Short paper.
- [C.4] *Tracs: Transparency Control for See-through Displays.*
D. Lindlbauer, T. Aoki, R. Walter, A. Höchtl, Y. UEMA, M. Haller, M. Inami, J. Müller.
 UIST 2014, Honolulu, Hawaii, USA.
- [C.3] *A Chair as Ubiquitous Input Device: Exploring Semaphoric Chair Gestures for Focused and Peripheral Interaction.*
 K. Probst, **D. Lindlbauer**, M. Haller, B. Schwartz, and A. Schrempf.
 CHI 2014, Toronto, Canada.
- [C.2] *Perceptual Grouping: Selection Assistance for Digital Sketching.*
D. Lindlbauer, M. Haller, M. Hancock, S. D. Scott, and W. Stuerzlinger.
 ITS 2013, St. Andrews, Scotland.
- [C.1] *Exploring the Use of Distributed Multiple Monitors Within an Activity-Promoting Sit-and-Stand Office Workspace.*
 K. Probst, **D. Lindlbauer**, F. Perteneder, M. Haller, B. Schwartz, and A. Schrempf.
 Interact 2013, Cape Town, South Africa.

Journal articles

- [J.1] *Measuring Visual Saliency of 3D Printed Objects.*
 X. Wang, **D. Lindlbauer**, C. Lessig, M. Maertens, M. Alexa
 IEEE Computer Graphics and Applications 36/4. Special Issue on Quality Assessment and Perception in Computer Graphics, 2016.

Book chapters

- [B.2] *Accuracy of Monocular Gaze Tracking on 3D Geometry.*
 X. Wang, **D. Lindlbauer**, C. Lessig, M. Alexa
 In *Eye Tracking and Visualization. Foundations, Techniques, and Applications*. ETVIS 2015
 Springer International Publishing 2017. M. Burch, L. Chuang, B. Fisher, A. Schmidt and D.
 Weiskopf (Eds.), ISBN 978-3-319-47023-8
- [B.1] *Beyond Prototyping.*
 J. Ängeslevä, I. Nicenboim, J. Wunderling, **D. Lindlbauer**
 In *Rethink! Prototyping*. Springer International Publishing 2016.
 C. Gengnagel, E. Nagy, R. Stark (Eds.), ISBN 978-3-319-24439-6

Other publications

- [EA.2] *A Collaborative See-through Display Supporting On-demand Privacy.*
D. Lindlbauer, T. Aoki, A. Höchtl, Y. UEMA, M. Haller, M. Inami, J. Müller
 Siggraph 2014 Emerging Technologies, Vancouver, Canada.
- [EA.1] *Rotating, Tilting, Bouncing: Using an Interactive Chair to Promote Activity in Office Environments.*
 K. Probst, **D. Lindlbauer**, P. Greindl, M. Trapp, M. Haller, B. Schwartz, and A. Schrempf
 CHI 2013 Extended Abstracts, Paris, France.
- [W.2] *Accuracy of Monocular Gaze Tracking on 3D Geometry.*
 X. Wang, **D. Lindlbauer**, C. Lessig, M. Alexa
 Workshop on Eye Tracking and Visualization (ETVIS) co-located with IEEE VIS 2015.

- [W.1] *Exploring the Potential of Peripheral Interaction through Smart Furniture.*
K. Probst, **D. Lindlbauer**, M. Haller, B. Schwartz, and A. Schrempf
Workshop on Peripheral Interaction at CHI 2014, Toronto, Canada.
- [TR.1] *Understanding Mid-Air Hand Gestures: A Study of Human Preferences in Usage of Gesture Types for HCI.* R. Aigner, D. Wigdor, H. Benko, M. Haller, **D. Lindlbauer**, A. Ion, S. Zhao, and J. T. K. V. Koh, Microsoft Tech Report MSR-TR-2012-11, Redmond, WA, USA.

Demonstrations & exhibits

- [D.6] *Changing the Appearance of Real-World Objects by Modifying Their Surroundings*, CHI 2017.
- [D.5] *Changing the Appearance of Physical Interfaces Through Controlled Transparency*, CeBit 2017.
Invited by Futurium Museum Berlin
- [D.4] *ad infinitum: a parasite that lives off human energy.* Science Gallery Dublin 2017.
P. Lopes, R. Kovacs, A. Ion, D. Lindlbauer, P. Baudisch. <http://www.a-parasite.org>
- [D.3] *Changing the Appearance of Physical Interfaces Through Controlled Transparency*, UIST 2016.
- [D.2] *Tracs: Transparency Control for See-through Displays*, UIST 2014.
- [D.1] *A Collaborative See-through Display Supporting On-demand Privacy*, SIGGRAPH 2014.

Theses

Perceptual Grouping of Digital Sketches.

2012, Master's thesis University of Applied Sciences Upper Austria, Hagenberg.

The OpenSocial API.

2009, Bachelor's thesis, University of Applied Sciences Upper Austria, Hagenberg

Research internships

Microsoft Research

Supervised by Andy Wilson

Redmond, WA, USA, 06/2017 – 09/2017

Professional experience

iOS developer [part time]

Interactive Pioneers (former Powerflasher)

Aachen, Germany, 09/2010 – 02/2012

Software / iOS developer [full time]

Interactive Pioneers (formerly Powerflasher)

Aachen, Germany, 10/2009 – 09/2010

Software developer [internship]

Interactive Pioneers (formerly Powerflasher)

Aachen, Germany, 03/2009 – 09/2009

Developer for WPF and Silverlight. Involved in concept & technical planning.

Web developer [internship]

Lomographic Society Vienna

Vienna, Austria, 08/2008 – 09/2008

Screen designer [internship]

Monte Video & Point advertising agency

Linz, Austria, 08/2001 – 09/2001

Service

Committees & Management

Program committee for ISS 2017

SIGCHI Operations committee (since 02/2016)

Student volunteers chair for UIST 2016

Poster chair for PerDis 2016

CHI Video liaison 2016, 2017 & 2018

Documentarian chair for UIST 2015

Reviewing

2017 CHI, UIST, ICMI, IMWUT (UbiComp), MobileHCI, DIS, DESFORM

2016 CHI, UIST, ISS, ICMI, SUI, AH, IJHCI

2015 CHI, ICMI, ITS, SUI, PerDis, PERCOMP Journal

2014 CHI, UIST, ICMI, NordiCHI, SUI

Student Volunteering

ITS 2014, UIST 2014, CHI 2015

Teaching

Teaching assistant

Winter term 2016, Computer Graphics 1, TU Berlin

Winter and summer term 2015 / 2016, Computer Graphics project & seminar, TU Berlin

Winter term 2013, Computer Graphics 2, University of Applied Sciences Hagenberg

Winter term 2011, Digital Imaging, University of Applied Sciences Hagenberg

Summer term 2011, Hypermedia programming, University of Applied Sciences Hagenberg

Summer term 2010, Computer Graphics (OpenGL), University of Applied Sciences Hagenberg

Co-supervised Master's theses

Tobias Bernhard, 2017, Large data visualization in Virtual Reality.

Patrick Engelhard, 2016. *3D Modeling using Sparse Sensor Data*.

Klemen Liliija, 2015. *Interaction with Transparent Displays*.

Viktor Miruchna, 2015. *Exploring the Potential Usage of Hydrogels for Tactile Feedback Systems*.

Andreas Fender, 2014. *Design and Implementation of a Performance Based Animation System for Prototyping Non-Humanoid Character Movements*.

Eva-Maria Grossauer, 2013. *Supporting Seamless Integration of Handwritten Casual Notes in Digital Tools Through Semantic Classification*.

Awards & recognitions

Best Paper Honorable Mention Award CHI 2016

Influence of Display Transparency on Background Awareness and Task Performance.

Best Paper Honorable Mention Award UIST 2015

GelTouch: Localized Tactile Feedback Through Thin, Programmable Gel.

Special recognitions for reviewing at UIST 2014, 2 x CHI 2016, UIST 2016, CHI 2017, UIST 2017

Selected press

Fast Co.Design. "An Invisibility Cloak for Distracting Gadgets", 2016.

Vice Motherboard. "'Origami-Like' Objects Can Instantly Change Their Transparency", 2016.

Futurism. "Controlled Transparency Is The Chameleon of Technology", 2016.

MIT Technology Review. "Make Your Own Buttons with a Gel Touch Screen", 2015.

Wired Germany. "Berliner Forscher haben einen Weg gefunden, Touchscreens temporäre Tasten zu verpassen", 2015.

El País. "Teclas en relieve que aparecen y desaparecen de la pantalla del móvil", 2015.

Engadget. "Gel-filled touchscreen creates real buttons on demand", 2015.

Gizmodo. "7 Experimental Interfaces That Show the Future of UI Design", 2014.