

# PROF. DR.-ING. KRISTIAN HILDEBRAND

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## PROFESSIONAL EXPERIENCE:

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- Professor, Graphics and Interactive Systems, Beuth University of Applied Science. (10/15-ongoing)
- Principal Research Engineer, DISDAR GmbH, Berlin (01/14 - 09/15)
  - Development of machine learning algorithms for semantic document analysis.
- Research Consultant, Disney Research Zürich (09/12 - 09/13)
  - Research and consulting for digital fabrication algorithms and applications.
- Research Scientist, Computer Graphics, TU-Berlin (10/08 - 12/13)
  - Ph.D. thesis: „Digital Fabrication of Shape: Abstraction, Data Structures and Optimization“
  - Research on large-scale content-based and sketch-based image retrieval.
  - Supervision of M.Sc. theses; teaching courses in computer graphics and computer science.
- Co-Founder and CTO of *kunstmatrix.com* (2008 - ongoing)
  - Development of web-based virtual and augmented reality solutions for the art community.
- Software Engineer at art+com AG, Berlin (03/06 - 10/08)
  - Development of innovative media installations, environments and interactive systems.
- BMBF funded StartUp project SankeyVis (10/05 - 03/06)
  - Development of visualization software of energy networks.
- Teaching Assistant, Graphics-Optics-Vision Group, Max-Planck-Institut Informatik (02/05 - 09/05)
- Research Assistant, Imager Lab, University of British Columbia, Vancouver (04/04 - 08/04)
- Internship, Hella Aglaia Mobile Vision GmbH, Berlin (03/03 - 04/03)
- Teaching Assistant, Bauhaus University, Weimar (03/00 - 07/03)

## PROFESSIONAL SKILLS AND ATTRIBUTES

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- Experienced knowledge of general programming, in particular C++, Java, Python, Javascript.
- In-depth knowledge of computer graphics, computer vision, machine learning and web technologies.
- Extensive experience in digital fabrication processes.

## EDUCATION:

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- Ph.D., Dept. of Computer Science, TU-Berlin (03/2014)
- Visiting Researcher, Disney Research Zürich (08/12 - 10/12)
- Diploma, Max-Planck-Institut Informatik, Saarbrücken (09/2005)
- Visiting Researcher, University of British Columbia, Vancouver, DAAD scholarship (2003 - 2004)
- Diploma studies in media systems, Bauhaus University, Weimar (1999 - 2003)

## SELECTED PUBLICATIONS:

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- Alexa, Marc, Hildebrand, Kristian and Lefebvre, Sylvain. (2017). Optimal Discrete Slicing. ACM Transactions on Graphics 2017. ACM Transactions on Graphics.
- Hildebrand, Kristian and Alexa, Marc. (2013). Sketch-based Pipeline for Mass Customization. ACM SIGGRAPH Talks 2013.
- Hildebrand, Kristian, Bickel, Bernd and Alexa, Marc. (2013). Orthogonal Slicing for Additive Manufacturing. Computers & Graphics 2013.
- Hildebrand, Kristian, Bickel, Bernd and Alexa, Marc. (2012). crdbrd: Shape Fabrication by Sliding Planar Slices. Computer Graphics Forum (Eurographics 2012).
- Eitz, Mathias, Richter, Ronald, Boubekeur, Tamy, Hildebrand, Kristian and Alexa, Marc. (2012). Sketch-based Shape Retrieval. ACM Transactions on Graphics, Proc. SIGGRAPH 2012.
- Eitz, Mathias, Hildebrand, Kristian, Boubekeur, Tamy and Alexa, Marc. (2011). Sketch-based Image Retrieval. IEEE Transactions on Visualization and Computer Graphics.
- Slack, James, Hildebrand, Kristian, and Munzner, Tamara. (2006). PRISAD: a partitioned rendering infrastructure for scalable accordion drawing. Information Visualization.