Thomas Lindemeier

Curriculum Vitae

Education

2012–2018 **Dr.rer.nat.**, *University of Konstanz.*

2010–2012 **Master of Science**, *University of Konstanz*, *1.4.*
Visual Computing.

2010–2012 **Bachelor of Science**, *University of Konstanz*, *2.3.*
Information Engineering.

Doctoral Thesis

title *e-David: Non-Photorealistic Rendering using a Painting Machine*

supervisors Prof. Dr. Oliver Deussen and Prof. Dr. Marcel Waldvogel.

description Subject of the thesis was to build a painting machine and to implement associated algorithms to generate paintings and drawings using visual feedback optimization.

Experience

2017–2018 **Research assistant and lecturer**, *University of Konstanz.*
Lecturer of the courses *Illustrative Computer Graphics* and *Global Illumination* as substitute for Prof. Dr. Deussen.

2012–2017 **Research assistant**, *University of Konstanz.*
Doctoral student and assistant at the work group *Visual Computing* of Prof. Deussen. Lead and assistance in various research projects and main researcher and developer of the e-David project. Lecturer and advisor of Bachelor's and Master's thesis in the field of Non-photorealistic rendering, computer graphics, computer vision and information visualization.

2009–2012 **Student assistant**, *University of Konstanz.*
Computer Graphics and Media Informatics work group of Prof. Deussen and *Bioinformatics and Information Mining* work group of Prof. Berthold.

2007–2009 **Intern and student employee**, *exorbyte GmbH*, Konstanz.
Development of backup and visualization tools.

2003–2004 **Basic military service**, Laupheim and Ebern.

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Languages

german	**First Language**	*Born and raised in Germany by german parents.*
english	**Fluent**	*Effective Operational Proficiency.*
french	**Basic knowledge**	*Breakthrough level.*

Skills

Programming

C++	six years	CMake	five years
OpenCV	five years	OpenGL	three years
ROS	one year	Qt	three years
processing	five years	Java	two years

Soft Skills

- Empathy, respect
- Mentoring, coaching
- Creativity, decision making
- Self-supervision
- Positivity, humor
- Friendliness, team player
- Public speaking
- Problem solving, Feedback

Other

- Computer vision
- Non-photorealistic rendering
- Computational creativity
- Ubuntu Linux, Windows
- git, svn
- Reviewing scientific articles
- Computer graphics
- Robotics
- Machine learning, deep learning
- GLSL
- LaTeX

Interests

family	Spending time with my wife-to-be and son.
sports	Mountain biking, running, basketball, handball and football.
music	Mostly electronic music.
movies, books	Science fiction, thrillers and dramas.
computer games	Predominantly multiplayer games. Forming teams and figuring out strategies to reach a common goal with new people is challenging and fun.

Awards

2017	Best Paper at Expressive 2017 for paper [SHL+17]
2017	4th place at the RobotArt Competition (https://robotart.org/2017-winners/)
2016	4th place at the RobotArt Competition (https://robotart.org/2016-winners/)
2013	Vimeo staff pick for the video *e-David Robot Painting* (https://vimeo.com/68859229)
2012	Best Paper, Runner Up at CAe 2012 for paper [DLPT12]
2011	VAST Grand Challenge - Outstanding Comprehensive Submission [Ber11]

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Teaching

- Illustrative Computergraphics
- Global Illumination
- Modelling in Computer Graphics
- Virtual and Augmented Reality
- Current Trends in Computer Graphics
- Research Paper Implementation - 2017, Institute of Animation, Filmakademie Ludwigsburg

Publications

[Ber11] D.A. Bertini, E.; Buchmuller, J.; Fischer, F.; Huber, S.; Lindemeier, T.; Maass, F.; Mansmann, F.; Ramm, T.; Regenscheit, M.; Rohrdantz, C.; Scheible, C.; Schreck, T.; Sellien, S.; Stoffel, F.; Tautzenberger, M.; Zieker, M.; Keim. **Visual Analytics of Terrorist Activities Related to Epidemics**. *Visual Analytics Science and Technology (VAST)*, pages 329–330, 2011.

[DL13] Oliver Deussen and Thomas Lindemeier. **E-David: Wissenschaftlicher Versuch und malendes Monstrum**. In *Zufallszwänge - Roboterbilder zwischen Wissenschaft und Kunst - Catalogue of the exhibition in Konstanz*, pages 39–45. University of Konstanz, Konstanz, 2013.

[DLPT12] Oliver Deussen, Thomas Lindemeier, Sören Pirk, and Mark Tautzenberger. **Feedback-guided Stroke Placement for a Painting Machine**. In *Proceedings of the Eighth Annual Symposium on Computational Aesthetics in Graphics, Visualization, and Imaging*, CAe '12, pages 25–33, Goslar Germany, Germany, 2012. Eurographics Association.

[LMPD15] Thomas Lindemeier, Jens Metzner, Lena Pollak, and Oliver Deussen. **Hardware-Based Non-Photorealistic Rendering Using a Painting Robot**. *Computer Graphics Forum*, 34(2):311–323, 2015.

[LPD13] Thomas Lindemeier, Sören Pirk, and Oliver Deussen. **Image Stylization with a Painting Machine using Semantic Hints**. *Computers & Graphics*, 37(5):293–301, August 2013.

[LSD16] Thomas Lindemeier, Marc Spicker, and Oliver Deussen. **Artistic Composition for Painterly Rendering**. In Matthias Hullin, Marc Stamminger, and Tino Weinkauf, editors, *Vision, Modeling & Visualization*. The Eurographics Association, 2016.

[SHL+17] Marc Spicker, Franz Hahn, Thomas Lindemeier, Dietmar Saupe, and Oliver Deussen. **Quantifying Visual Abstraction Quality for Stipple Drawings**. In *Proceedings of the Symposium on Non-Photorealistic Animation and Rendering*, NPAR '17, pages 8:1–8:10, New York, NY, USA, 2017. ACM.

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