

Dr. Eduard Zell

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| SKILLS | Expert | Intermediate |
|-------------|--------------------------|---------------------------------------|
| Programming | C++, OpenGL, OpenCL | CUDA, Python, R, CMake |
| APIs | Qt, FBX, Eigen | GTest, Mel, Alembic |
| Software | Maya, Hairfarm, GIMP | Unreal Engine, Houdini, 3ds Max, Nuke |
| Languages | German, English, Russian | Spanish |

EXPERIENCE

- Sept. 2017 – June 2018 **Senior Software Developer – Germany**, Trotzkind GmbH, Berlin
developed from scratch:
- frame-to-frame mesh registration in volumetric video
 - remeshing, mesh repair and other geometry editing algorithms
 - example-based skinning
 - FBX and Alembic importer/exporter
- Oct. 2010 – Mar. 2018 **Assistant Researcher and PhD Student – Germany**, CITEC Cluster of Excellence, Bielefeld University
- R&D on 3d scanning, editing, animating and rendering virtual faces
 - established collaborations with research labs in Spain, Ireland, Korea
 - developed custom software for Adidas
 - co-developed a VR-system for stroke patient rehabilitation
 - interdisciplinary research on facial perception of digital characters
 - held lectures in game development and real-time rendering
- Oct. 2016 – May 2017 **Parental Leave**
- Nov. 2015 – May 2016 **Project Head – Germany/Turkey**, SUN start-up network
organized with a team a trip consisting of 15 company visits and three networking events to connect with Istanbul's start-up community
- June 2013 – Sept. 2013 **Visiting Researcher – South Korea**, KAIST, Daejeon
researched and published work on facial animation retargeting
- Aug. 2008 – Aug. 2009 **Software/Shader-Developer – Austria**, Vizrt, Schwaz
coded 3d computer graphics software for TV studios
- Sept. 2006 – Feb. 2007 **3D-Artist (Internship) – Germany**, RTT (now 3DExcite), Munich
real-time visualizations for Ferrari, Volkswagen and Audi
- June 2004 – Sept. 2004 **Clay-Animator (Internship) – Germany**, IfNM, Rostock

EDUCATION

- Oct. 2010 – June 2017 **PhD in Computer Graphics – Germany**, Bielefeld
- Sept. 2009 – Aug. 2010 **Computer Animation and Visual Effects (MSc.) – UK**, Bournemouth
- Sept. 2005 – Feb. 2009 **Computer Science and Media (BSc.) – Germany**, Furtwangen
- Feb. 2008 – July 2008 **Software Engineering (study abroad) – Spain**, Gijón
- June 2004 **University-entrance diploma – Germany**, Rostock

SCHOLARSHIPS

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| July 2013 – Aug. 2013 | DAAD-NRF-Summer Institute Program (stay abroad in South Korea) |
| July 2007 – Aug. 2010 | “Evangelisches Studienwerk” (scholarship for outstanding students) |
| Mar. 2008 – Mar. 2011 | e-fellows (scholarship for high-potentials) |
| Feb. 2008 – July 2008 | ERASMUS (stay abroad in Spain) |

AWARDS

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| Mar. 2015 | FameLab NRW (2 nd Place) – worldwide science communication competition |
| Sept. 2013 | Eurographics Medical Prize (3 rd Place) |

VOLUNTEER

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| Oct. 2012 – Oct. 2014 | coordinator within the alumni network of the “Evangelisches Studienwerk” |
| 2003 – 2008 | various volunteer positions (e.g. student representative, youth leader) |
| Oct. 2004 – June 2005 | Civil service (taking care of drug addicted and disabled people), Caritas |

INTERESTS

traveling, ballroom dances, rock climbing, modern art and architecture

PUBLICATIONS

Facial Retargeting with Automatic Range of Motion Alignment, Roger Blanco i Ribera*, Eduard Zell*, J. P. Lewis, Junyong Noh, Mario Botsch; *ACM Transaction on Graphics 36(4)/SIGGRAPH, 2017*, (*equal contribution).

Differential Effects of Face-Realism and Emotion on Event-Related Brain Potentials and Their Implications for the Uncanny Valley Theory, Sebastian Schindler*, Eduard Zell*, Mario Botsch, Johanna Kissler; *Nature Scientific Reports, 2017, 7, 45003* (*equal contribution).

To Stylize or not to Stylize? The Effect of Shape and Material Stylization on the Perception of Computer-Generated Faces, Eduard Zell, Carlos Aliaga, Adrian Jarabo, Katja Zibrek, Diego Gutierrez, Rachel McDonnell, Mario Botsch; *ACM Transaction on Graphics 34(6)/ SIGGRAPH Asia, 2015*, pp. 184:1-184:12.

Accurate Face Reconstruction through Anisotropic Fitting and Eye Correction, Jascha Achenbach, Eduard Zell, Mario Botsch; *Proc. of Vision, Modeling and Visualization, 2015*.

A Natural Movement Database for Management, Documentation, Visualization, Mining and Modeling of Locomotion Experiments, Leslie Theunissen, Michael Hertrich, Cord Wiljes, Eduard Zell, Christian Behler, Andre Krause, Holger Bekemeier, Philipp Cimiano, Mario Botsch, Volker Dürr; *Proc. of Living Machines, 2014*, pp. 308-319.

ElastiFace: Matching and Blending Textured Faces, Eduard Zell, Mario Botsch; *NPAR '13: Proc. of the Symposium on Non-Photorealistic Animation and Rendering, 2013*, pp. 15-24.

OctaVis: A Virtual Reality System for Clinical Studies and Rehabilitation, Eduard Zell, Eugen Dyck, Agnes Kohsik, Philip Grewe, David Flentge, York Winter, Martina Piefke, Mario Botsch; *3rd Place - Dirk Bartz Prize for Visual Computing in Medicine (Eurographics Medical Prize), 2013*, pp. 9-12.

OctaVis: An Easy-to-Use VR-System for Clinical Studies, Eugen Dyck, Eduard Zell, Agnes Kohsik, Philip Grewe, York Winter, Martina Piefke, Mario Botsch; *Proc. of Virtual Reality Interaction and Physical Simulation (VRIPHYS), 2012*, pp. 127-136.

Developing Design Guidelines for Characters from Analyzing Empirical Studies on the Uncanny Valley, Eduard Zell, Mario Botsch; *Proc. of ACM International Symposium on Facial Analysis and Animation, 2012*, pp. 11:1-2.

REVIEWER

Eurographics 2018

Symposium on Computer Animation (SCA) 2018