

EDILSON DE AGUIAR

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SUMMARY

Highly motivated and enthusiastic *Computer Engineer* with demonstrated analytical and software development skills in Computer Graphics and Computer Vision. More than 10 years experience with computers – software and hardware, research and practice. Excellent written and verbal communication skills by way of technical reports and presentations. Ability to work independently and as part of a team, with proven strengths in leadership situations.

EXPERIENCE AND SKILLS

- Proficiency in C/C++, PYTHON, OPENGL and MATLAB.
- Major area of expertise: Computer Graphics (3D video, motion capture, geometric modeling, and character animation), Computer Vision (object tracking, segmentation, pose estimation, and object recognition) and Virtual Reality and Augmented Reality applications.
- Published acknowledged papers and reviewed articles in international conferences.
- Experienced with software development (Linux/UNIX/Windows) with international teams.
- **Languages:** Portuguese (native), English (fluent), German (fluent) and French (intermediate).

EDUCATION

[01/2004 – Present] **Ph.D. Student in Computer Science**, *Computer Graphics Group, Max-Planck Institute for Computer Science, Germany*. Research on marker-less motion capture, 3D video and character animation under the supervision of Prof. Hans-Peter Seidel and Prof. Christian Theobalt. (PhD defense by July/08).

[10/2002-12/2003] **M.S (Honor degree) in Computer Science**, *Saarland University, Germany*. Courses: computer graphics, geometric processing, computer architecture, multimodal systems, information retrieval and data mining. Master Thesis: Character Animation from a MOCAP database.

[03/1997-03/2002] **B.S (Honor degree) in Computer Engineering**, *UFES Federal University, Brazil*. Background studies in computer science, electronics and management.

WORK HISTORY

[01/2004 – Present] **Researcher Associate in Computer Science**, *Computer Graphics Group, Max-Planck Institute for Computer Science, Germany*. Research on marker-less motion capture and applications. Design, planning and management of a multi-camera studio. Investigation and implementation of 3D television software within a European Union project.

[08/2007 – 01/2008] **Visiting Researcher in Computer Science**, *Robotics Lab, Stanford University*. Research on marker-less motion capture and scene reconstruction under the supervision of Prof. Sebastian Thrun and Prof. Christian Theobalt.

[09/2001 – 03/2002] **C/C++ Specialist**, *ENGESIS, Brazil*. Worked as part of a team to design, program and test a real-time internet-based system to manage and control the railway system in south Brazil.

FELLOWSHIPS / AWARDS

- **IMPRS Fellowship:** International Max-Planck Research School program for talented students providing financial support during master studies (10/2002 – 12/2003).
- **Special Training Program Fellowship:** Brazilian government founded program for talented undergraduate students (07/1998 – 08/2001).

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TALKS AND MOST RELEVANT PUBLICATIONS

- **E. de Aguiar**, C. Stoll, C. Theobalt, N. Ahmed, H.-P. Seidel and S. Thrun, *Performance Capture from Sparse Multi-view Video*. In ACM SIGGRAPH 2008, Los Angeles, USA
- **E. de Aguiar**, C. Theobalt, S. Thrun and H.-P. Seidel, *Automatic Conversion of Mesh Animations into Skeleton-based Animations*. In EUROGRAPHICS 2008, Crete, Greece
- **E. de Aguiar**, C. Theobalt, C. Stoll, and H.-P. Seidel, *Marker-less 3D Feature Tracking for Mesh-based Motion Capture*. In ICCV'07 - Workshop on Human Motion, Rio de Janeiro, Brazil
- C. Theobalt, S. Wuermlin, **E. de Aguiar**, and C. Niederberger. Tutorial *New Trends in 3D Video* In EUROGRAPHICS 2007, Prague, Czech Republic
- C. Theobalt, **E. de Aguiar**, M. A. Magnor, and H.-P. Seidel, *Reconstructing Human Shape, Motion and Appearance from Multi-view Video*. Chapter in book *Three-Dimensional Television: Capture, Transmission, and Display*. Springer, Heidelberg, 2007.
- C. Theobalt, C. Roessl, **E. de Aguiar** and H.-P. Seidel, *Animation Collage*. In Proc of ACM Symposium on Computer Animation (SCA 2007), San Diego, USA.
- **E. de Aguiar**, C. Theobalt, C. Stoll and H.-P. Seidel, *Marker-less Deformable Mesh Tracking for Human Shape and Motion Capture*. In Proc. of IEEE CVPR 2007, Minneapolis, USA.
- **E. de Aguiar**, R. Zayer, C. Theobalt, M. Magnor and H.-P. Seidel, *Video-driven Animation of Human Body Scans*. In IEEE 3DTV Conference 2007, Kos Island, Greece.
- **E. de Aguiar**, C. Theobalt, C. Stoll and H.-P. Seidel, *Rapid Animation of Laser-scanned Humans*. In Proc. of IEEE Virtual Reality 2007, pp. 223-226, Charlotte, USA.
- **E. de Aguiar**, C. Theobalt, H.-P. Seidel, *Automatic Learning of Articulated Skeletons from 3D Marker Trajectories*. In Proc. of Second International Symposium, ISVC 2006, pp. 485-494, Lake Tahoe, USA.
- **E. de Aguiar**, C. Theobalt, M. Magnor, H.-P. Seidel, *Reconstructing Human Shape and Motion from Multi-view video*. 2nd European Conference on Visual Media Production (CVMP), p. 42-49. London, UK. 2005.
- C. Theobalt, **E. de Aguiar**, M. Magnor, H. Theisel, H.-P. Seidel: *Marker-free Kinematic Skeleton Estimation from Sequences of Volume Data*, In Proc. of ACM Symposium on Virtual Reality Software and Technology (VRST), p.57-64, Hong Kong, China, 2004.
- **E. de Aguiar**, C. Theobalt, M. Magnor, H. Theisel, H.-P. Seidel: *M³: Marker-free Model Reconstruction and Motion Tracking from 3D Voxel Data*. In Proc. of Pacific Graphics 2004, p.101-110, Seoul, Korea.