

Jaroslav Krivánek

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CURRENT POSITION	08/2011 – present	Charles University Prague, School of Computer Science Assistant professor.
PREVIOUS POSITIONS	06/2011 (1 month)	University de Rennes 1 (IRISA – INRIA Rennes) Invited professor.
	08/2010 – 07/2011	Charles University Prague, School of Computer Science Marie Curie research fellow.
	08/2008 – 07/2010	Cornell University, Department of Computer Science Marie Curie research fellow.
	11/2007–12/2007 (2 months)	Sony Pictures Imageworks Consultant.
	2006 – 07/ 2008	Czech Technical University in Prague Assistant professor / researcher.
	2003 – 2005 (13 months)	University of Central Florida Visiting researcher.
	1999 – 2000 (14 months)	Seznam.cz Software developer.
EDUCATION	2001 – 2005	INRIA Rennes, France – Czech Technical University in Prague, Czech Rep. Ph.D. in Computer Science, Computer Graphics - Image Synthesis Thesis title: “Radiance Caching for Global Illumination Computation on Glossy Surfaces”
	1995 – 2001	Czech Technical University in Prague, Faculty of Electrical Engineering Master in Computer Science and Engineering, Computer Graphics (Czech title: Ing.) Thesis title: “Modern Algorithms for Image Synthesis.”
FUNDING	2008	European Commission – Marie Curie International Outgoing Fellowship CGI-for-Film: Controllable Global Illumination for Film Production
	2003	FRVŠ – Ministry of Education of the Czech Republic Perceptually Driven Rendering of Geometric Objects.
	2002	FRVŠ – Ministry of Education of the Czech Republic Geometry Modeling with Point Samples
TEACHING EXPERIENCE	Courses	Selected Topics in Global Illumination (Spring 2011, Charles University, started and is teaching the course) Computer Graphics III (Fall 2010, Fall 2011, Charles University, is teaching the course) Algorithms for Computer Graphics (Fall 2007, Czech Technical University, co-teaching) Realistic Image Synthesis (Spring 2007, Czech Technical University, started and taught the course) Algorithms for Computer Graphics (Fall 2006, Czech Technical University, teaching assistant) Multimedia and Virtual Reality (Spring 2005, Czech Technical University, teaching assistant) Introduction to Programming (Spring 2001, Spring 2002, Czech Technical University, teaching assistant)
	Seminars	Special Seminar in Computer Graphics (Fall 2010, Spring/Fall 2011, Charles University, seminar organizer)

STUDENT SUPERVISION **PhD theses**

Jan Beneš, Content creation for computer graphics, 09/2011 – ongoing.
Ondřej Karlík, Efficient Image Synthesis Algorithms, 09/2011 – ongoing.
Jiří Vorba, Reliable and efficient light transport simulation, 09/2011 – ongoing.
Václav Gassenbauer, *Exploiting Coherence for Efficient Global Illumination Computation*, 03/2007 – 12/2012.

Team project - Charles University

8 students, *Stubble - A hair modeling system*, 03/2011 – 01/2012.

Diploma theses - Charles University

Matej Marko, Sound simulation of granular materials, 11/2011 – ongoing.
Martin Šik, *Hair interpolation*, 11/2010 – ongoing.
Dalibor Frivaldský, *Fast implementation of procedural texturing*, 11/2010 – ongoing.
Martin Růžička, *Design and evaluation of a user interface for cinematic lighting*, 09/2010 – 02/2012.
Jiří Václavík, *CSG modeling for polygonal objects*, 11/2010 – 02/2012.
Jiří Vorba, *Optimal strategy for connecting light paths in bidirectional methods*, 09/2010 – 06/2011.
(**2nd place award – ACM Student project of the Year, Best paper – CESC 2011**)

Bachelor theses - Charles University

Jan Čermák, *Procedural generation of human skin structure*, 11/2012 – ongoing.
Tomáš Skřivan, *3D Texture deformation according to a polygonal model*, 12/2011 – ongoing.

Diploma theses - Czech Technical University

Petr Liška, *Image-based shape modification*, 09/2009 – 04/2010.
Martin Dušek, *Efficient rendering of hair and fur*, 09/2007 – 04/2008.
Jiří Štěpín, *Interactive relighting of cinematic scenes*, 09/2007 – 04/2008.
Petr Minařík, *A User-Friendly Editor for 3D Worlds*, 09/2006 – 06/2007.
Jiří Formánek, *Non-linear Representation of Light Transport*, 09/2006 – 06/2007.
Václav Gassenbauer, *Environment Mapping on Glossy Objects Using Wavelets*, 02/2006 – 02/2007.
Jan Ondřej, *Analytical Model for Light Scattering in Participating Media*, 02/2006 – 02/2007.

Bachelor theses - Czech Technical University

Peter Krištof, *Water Erosion using Smoothed Particle Hydrodynamics*, 09/2007 – 06/2008.
(**results published in Computer Graphics Forum, vol. 28, no. 2., pp. 219–228, 2009**)
Hana Trusková, *Digital reconstruction of Celtic Oppida*, 09/2007 – 04/2008.
Radek Bien, *Terrain reconstruction from contour maps*, 09/2007 – 04/2008.
Jan Štěpánovský, *Semi-automatic extraction of contour-lines from scanned maps*, 09/2007 – 06/2008.
Lubomír Rezek, *3D Data Conversion*, 03/2007 – 04/2008.
Ondřej Klučka, *Level-of-detail in OpenGL*, 03/2006 – 04/2008.
Michal Černohorský, *Rendering of Topographic Vector Maps for the GPS Navigation*, 03/2007 – 06/2007.

PROFESSIONAL ACTIVITIES **Program committee**

ACM SIGGRAPH Symposium on Interactive 3D Graphics and Games (I3D) 2012; Eurographics Symposium on Rendering 2007, 2008, 2009, 2011; Spring Conference on Computer Graphics 2011, 2012; Pacific Graphics 2010; Eurographics posters 2009; SIGGRAPH Asia Sketches 2009; International Conference in Central Europe on Computer Graphics, Visualization and Computer Vision (WSCG) 2012.

Organizing committee

Eurographics 2007; Eurographics Symposium on Rendering 2011.

Reviewing for journals

ACM Trans. on Graphics, IEEE Trans. on Pattern Analysis and Machine Intelligence, IEEE Trans. on Visualization and Computer Graphics, Computer Graphics Forum, The Visual Computer.

Reviewing for conferences

ACM SIGGRAPH 2006-2012; ACM SIGGRAPH Asia 2008-2011; Eurographics 2006-2012; Eurographics

Symposium on Rendering 2003-2011; Pacific Graphics 2009-2010; High Performance Graphics 2009; Symposium on Interactive 3D Graphics and Games 2009-2010; Spring conference on Computer Graphics 2005, 2011.

PRESENTATIONS **Invited Talks**

IRISA Rennes, 06/2011

Max-Planck-Institut Informatik, 03/2011

Karlsruhe Institute of Technology, 03/2011

Czech Technical University, 11/2010

INRIA Rhones-Alpes, 03/2010

Tutorials

Global Illumination Across Industries, ACM SIGGRAPH 2010.

Practical Global Illumination with Irradiance Caching, ACM SIGGRAPH 2008.

Practical Global Illumination with Irradiance Caching, ACM SIGGRAPH 2007.

PUBLICATIONS See Appendix.

LANGUAGES Czech (native), English, French (fluent), German, Russian (basics).

REFERENCES **Prof. Kavita Bala**, Cornell University; kb@cs.cornell.edu, +1 607 255 1383

Prof. Kadi Bouatoch, IRISA / INRIA Rennes, France; kadi@irisa.fr, +33 2 99 84 72 58

Prof. Sumanta Pattanaik, University of Central Florida, USA; sumant@cs.ucf.edu, +1 407 823 2638

Prof. Jiří Žára, Czech Technical University in Prague, Czech Republic; zara@fel.cvut.cz, +420 224 357 311