C U R R I C U L U M V I T A E

Jozsef KOLOSZAR

DATE AND PLACE OF BIRTH: 17 July, 1978, Sopron, Hungary

CITIZENSHIP: Hungarian

HOME ADDRESS: < . . . >

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DEGREES:

2008. April. 24.	Ph.D. (Thesis: Virtual Colonoscopy) School of Informatics Faculty of Electrical Engineering & Informatics Budapest University of Technology and Economics Budapest, Hungary
2002. June 26.	M.Sc. (Thesis: Virtual Colonoscopy) Compter Science (Technical Informatics) School of Informatics Faculty of Electrical Engineering & Informatics Budapest University of Technology and Economics Budapest, Hungary

EDUCATION:

2004 – 2005	Ph.D. Student (Fulbright Fellow) Department of Computer Science State University of New York at Stony Brook Stony Brook, New York, U.S.A.
2002 – 2004	Ph.D. Student School of Informatics Department of Control Engineering and Information Technology Faculty of Electrical Engineering & Informatics Budapest University of Technology and Economics Budapest, Hungary
1997 - 2002	Major in Informatics Specialized in Robotics and Fault Tolerant Systems Faculty of Electrical Engineering & Informatics 5-year BS-MS Program Budapest University of Technology and Economics Budapest, Hungary

1994 - 1995	Pittsburgh Taylor Allderdice High School (11th Grade) Pittsburgh, Pennsylvania, U.S.A. CAS AP Exams: Calculus BC (5), Physics C (5), Chemistry C (5)
1992 - 1997	Szechenyi Istvan High School Major in Physics and Biology Sopron, Hungary
1989 - 1990	Blacksburg Middle School (6th Grade, 8th grade math) Blacksburg, Virginia, U.S.A.
1983 - 1992	Orsolya Elementary School Major in Mathematics Sopron, Hungary

LANGUAGES SKILLS: Hungarian (mother tong)
English (excellent)
German (good)
Latin (fair)

SPECIAL RECOGNITIONS:

2004 Fulbright Student Fellowship Recipient
One academic year (2004/05) at State University of New York at Stony Brook

2003 Spring Conference on Computer Graphics 2003
Springer 1st Best Paper Award

2002 Hungarian National Doctoral Scholarship;

2001 Hungarian National Academic Scholarship;

2001 Central European Seminar on Computer Graphics 2001
Best Paper Award & Outstanding Presentation Award;

2001 XXV. Hungarian Student Research Conference (Informatics, Computer Graphics and Multimedia)
1st place & Graphisoft Award;

2000 BME College Research Conference
1st place, Ericsson Award & IEEE Student Membership;

1995 JETS TEAMS (Junior Engineering and Technical Society Test of Engineering Aptitude, Mathematics and Science), USA - 7th place (national), (Team Taylor Allderdice High School Pittsburgh);

1988 National Students Mathematics Competition (Hungary) - 5th place;

PROFESSIONAL SKILLS:

Software development
Languages: C++ and Java, also C, Assembly, graphics shader languages.
Technologies: MFC, .NET, D3D, OpenGL, QT, Xlib (linux)
Special expertise: computer graphics (3D medical diagnostic visualization) and image processing, high-performance algorithms and optimization.
Additional interest: computer games (graphics and interaction), network programming, fault tolerant computing, stochastic modeling and simulation.

Internet
Development of TCP/IP and UDP based applications
Development of HTML/Java applications

Operating Systems
Microsoft Windows system administration
UNIX/Linux system administration

Teaching
Lecturing full undergraduate courses and labs, supervising student research projects

WORK EXPERIENCES:

2005 June – Present: Software Developer,
eRAD Image Medical Inc.
Development: Tele-radiology, PACS, visualization solutions development

2005 Sept – present: Lecturer,
Institute of Informatics, University of Western Hungary
Teaching: Software Development, Information Systems Security, supervising undergraduate developer labs

2004 Sept – 2005 June: Ph.D. Student,
Department of Computer Science, Sate University of New York at Stony Brook, Stony Brook, New York, U.S.A.
Research: Virtual Colonoscopy, Computer Aided Diagnostics

2002 Sept – 2004 June: Ph.D. Student,
Department of Control Engineering and Information Technology, Faculty of Electrical Engineering and Informatics, Technical University of Budapest, Hungary.
Research: Interactive Volume Visualization,
Teaching: Object Oriented Programming Lab

2001 Spring Semester: Teaching Assistant
Department of Control Engineering and Information Technology, Faculty of Electrical Engineering and Informatics, Technical University of Budapest, Hungary.
Teaching: Computer Networks Lab

2001 Jan - 2003: Software Developer.
Department of Space Technology, KFKI Research Institute for Particle and Nuclear Physics of the Hungarian Academy of Sciences, Budapest, Hungary.
Project: Software development for the Rosetta Lander (ESA) project

2001 Sept – Nov.: Research Fellow.
Applied Management and Computing Division, Applied Computing, Mathematics and Statistics Group, Lincoln University, Christchurch, New Zealand.
Research: Stochastic Partial Differential Equations: Solute Transport in Porous Media

PROFESSIONAL AND SCIENTIFIC SOCIETIES:

2000 - Institute of Electrical and Electronic Engineering (IEEE), Student Member

PUBLICATIONS:

Book Chapters

Michael Wimmer, Andrej Ferko, Laszlo Szirmay-Kalos, Helwig Hauser: CESCG 2000-2005 Best Papers Selection, Österrechische Computer Gesellschaft, 2006.

International Journals

Koloszár, J. & Jae-Young, Y (2003): Accelerating Virtual Endoscopy. *Journal of WSCG, Vol 11. No. 2, ISSN 1213-6972, 2003, Plzen, Czech Republic*

Szijarto G., Koloszar, J.: Real-time Hardware Accelerated Rendering of Forests at Human Scale*, Journal of WSCG, Vol.12, No.1-3, ISSN 1213-6972, 2004, Plzen, Czech Republic*

International Conference and Seminar Papers

Jocha, Dávid & Koloszár, József (2001): Direct Volume Rendering Based Interactive Virtual Colonoscopy. *Central European Seminar on Computer Graphics 2001 Proceedings p: 10-22, Budmerice, Slovak Republic, http://www.cg.tuwien.ac.at/studentwork/CESCG-2001/.*

Tarján Z, Zágoni T, Szilvás A, Székely G, Koloszár J, Jocha D, Makó EK (2003): Three-Dimensional Computed Tomography in Inflammatory Bowel Disease *in Pavone P, Debatin S. Syllabus „3rd International Workshop on Multislice CT, 3D Imaging, Virtual Endoscopy" Springer-Verlag Milano 2003 pp. 187-192*

Szijartó G. & Koloszár, J (2003): Hardware Accelerated Rendering of Foliage for Real-time Applications. *Spring Conference on Computer Graphics 2003*, *April 24-26, 2003, Budmerice, Slovak Republic (best paper award)*

Balázs Csébfalvi, József Koloszár, Zsolt Tarján: Vector Quantization for Feature-Preserving Volume Filtering, *Vision, Modeling, and Visualization, Stanford, California, USA, pages 363-370, 2004*

Koloszár, J., Szirmay-Kalos, L., Tarján, Zs., Jocha, D.: Shape Based Computer Aided Diagnosis and Automated Navigation in Virtual Colonoscopy, *Spring Conference on Computer Graphics, Slovak Republic 2006*

International Conference Presentations

Tarján, Zs., Koloszár, J., Forgács, B., Kovács, G., Hart, M., Daus, H-J. (2005): Effect of CAD in CT Colonography: Diagnostic Accuracies and Evaluation Times Using an Academic Software. *99th Scientific Assembly and Annual Meeting of the Radiological Society of North America RSNA 2005, Chicago, 2005.*

Tarján Zs, Koloszár J, Szirmay-Kalos L, Kovács G, Vígváry Z, Makó EK. (2004): ColVis: A PC-based Software for Low-dose Scan, Colon Preparation-less CT Colonography, *98th Scientific Assembly and Annual Meeting of the Radiological Society of North America RSNA 2004, Chicago, Nov 28-Dec 3 , 2004, Abs.: Radiology SSC18-05*

Tarján Zs, Koloszár J, Forgács B, Szirmay-Kalos L, Zágoni T, Makó EK. (2005): Observer and computer assisted diagnosis reading in CT colonography: initial results, *16th Annual Meeting of European Society of Gastrointestinal and Abdominal Radiology ESGAR 2005, Florence, Italy, May 28-31, 2005.*

Jocha, Dávid & Koloszár József (2002): Direct Volume Rendering Based Virtual Colonoscopy. *European Congress of Radiology March 2002 Vienna, Abstr.: Eur.Radiol. 12, Suppl.1.B-0975 2002.*

Tarján Zs, Zágoni T, Székely Gy, Koloszár J, Jocha D, EK Makó (2002): Virtual colonoscopy of inflammatory bowel disease*, European Congress of Radiology March 2002 Vienna, Abstr.: Eur.Radiol. 12, Suppl.1.B-0479 215.p. 2002.*

Tarján Zs, Koloszár J. (2004): Virtual colonoscopy, *36th Annual Scientific Meeting of The Hungarian Medical Association Of America, 24-29 October, 2004 in Sarasota, Florida. Invited Talk*

Túróczy G, Tarján Z, Jocha D, Koloszár J, Makó EK (2002): Our experience with a self-developed virtual endoscopy program, *Slovenian-Croatian-Hungarian Radiological Symposium, Maribor, Sept 19-20. 2002.*

Tarján Z, Zágoni T, Székely G, Jocha D, Koloszár J, Vígváry Z, Makó E. (2002): Virtual colonoscopy of inflammatory bowel disease, Slovenian-Croatian-Hungarian Radiological Symposium, Maribor, Sept 19-20. 2002.

National (Hungarian) Conference and Seminar Papers

Jocha, Dávid & Koloszár, József (2002): Virtual Colonoscopy using Direct Rendering of Surfaces from Volumetric Data. *3rd National Conference on Image Processing and Shape Recognition, Domaszék, Hungary, Jan 23-25, 2002.*

Koloszár, József. & Jocha, Dávid (2002): Accelerating Volumetric Ray Tracing in Virtual Endoscopy. *1st Hungarian Conference on Computer Graphics, Budapest, Hungary, May 28-29, 2002.*

J. Koloszár, L. Szirmay-Kalos: Automatic Centerline Extraction from Tubular Volumetric Structures, *KÉPAF 2004, Miskolctapolca, 2004, Magyarország*

Koloszár J, Szirmay-Kalos L, Tarján Zs. (2005): Computer Aided Diagnosis based on Second Derivates of the Volume Data, Harmadik Magyar Szamitogepes Grafika és Geometria Konferencia, Budapest, 2005 nov 17-18. pp 71-78. ISBN 963-421-593-9

National (Hungarian) Conference Presentations

Tarjan, Zs., Zagoni, T., Szekely, Gy., Koloszar, J., Jocha, D., Mako, E. K. (2002): Computed Tomography in Inflammatory Bowel Disease. *21th Congress of the Hungarian Radiologist Society, Szeged, Hungary, August, 2002, Abs.: Magy.Radiol. 76, No.4.*

Tarján Zs, Koloszár J. (2004): Virtuális kolonoszkópiás szoftverkomponensek fejlesztése és értékelése, *A Magyar Radiológusok Társasága XXII. Kongreszusa, Balatonfüred, június 24-26, 2004, Abs: Magyar Radiológia 2004;78:*

Tarján Zs, Koloszár J., Zágoni T., Vacha J., Forgács B., Vígváry Z., Balázs Gy., Makó E. (2004): Béltisztítás nélküli CT kolonográfia: kezdeti tapasztalatok, *A Magyar Radiológusok Társasága XXII. Kongreszusa, Balatonfüred, június 24-26, 2004, Abs: Magyar Radiológia 2004;78:*

Túróczy G, Tarján Zs, Jocha D, Koloszár J. (2002): Our experience with self-developed virtual endoscopy program, *Magyar Gasztroenterológiai Társaság. 44. Nagygyűlés, Balatonaliga, 2002 június, poster, Abstr.: Zeitschrift für Gastroenterologie 40, 142. 362.p. 2002.*

Tarján Zs, Koloszár J, Forgács B, Wacha J, Kovács G, Zágoni T. (2005): Diagnostic performance of a CAD system int he detection of colonic polyps in virtual colonoscopy, *Magyar Gasztroenterológiai Társaság 47. Nagygyűlése, Balatonaliga Június 7-11, 2005, Abs pp: 137, Abs.: Zeitschrift für Gastroenterologie 43; pp 520 2005.*

Student Reseaerch Conference Paper

Jocha, Dávid & Koloszár, József (2000): Virtuális kolonoszkópia térfogatvizualizációs módszerekkel. [Volume rendering based interactive virtual colonoscopy] *2000/2001 Student Research Conference Paper, Department of Control Engineering and Information Technology, Budapest University of Technology and Economic, 24 pp. (1st prize, national, special recognitions)*

Additional

Koloszar, Jozsef (2002): Virtual Colonoscopy. MS Thesis. Department Control Engineering and Information Technology. College of Electrical Engineering & Informatics, Budapest University of Technology and Economics, Budapest, Hungary. 66 pp.

Koloszar, Jozsef (2007): Virtual Colonoscopy. PhD. Thesis. Department Control Engineering and Information Technology. College of Electrical Engineering & Informatics, Budapest University of Technology and Economics, Budapest, Hungary. 107 pp.