

INTERESTS	Computer science, applied mathematics, machine learning, information visualization, programming	
EDUCATION	Helsinki University of Technology, Finland	2007 - 2009
	M.Sc. degree: Machine Learning and Data Mining Completed Ph.D level courses beyond the program requirements	
	Technical University of Cluj-Napoca, Romania	2001 - 2006
	Engineering Diploma: Computer Science (10 semesters - M.Sc. equivalent, all courses in English)	
WORK EXPERIENCE	HAMK University of Applied Sciences, Forssa, Finland	02/2006 - 05/2006
	Exchange student with Erasmus scholarship Worked at InnoForss lab co-located with university	
	Tamási Áron Highschool, Odorhei, Romania	1997 - 2001
	Mathematics-Physics class	
PERSONAL PROJECTS	Adaptive Informatics Research Centre, HUT	02/2008 - 07/2009
	Research assistant (part-time: 3 months, full-time: 13 months): laboratory of Prof. Teuvo Kohonen Course assistant: Information visualization, Spring 2009 (hosting exercise sessions, term project)	
	<ul style="list-style-type: none"> • Research topic: analysis of eye movements using machine learning methods, inferring relevance of an image, designing and implementing adaptive user interfaces for image retrieval. 	
	Siemens Corporate Research, Princeton, USA	01/2007 - 07/2007
	Intelligent Vision and Reasoning Department	
	<ul style="list-style-type: none"> • Worked as a research intern on the GeoSpace and Media Tool, a complex news aggregator • Contributed to implementing, tuning and testing large scale data mining algorithms. Adapted news clustering tool for other domains (medical articles, patents). • As side-projects developed various benchmarking and visualization tools, including a novel zooming graphical interface. 	
	eSpime Oy, Espoo, Finland	10/2006 - 12/2006
	<ul style="list-style-type: none"> • Contributed to the development of a content management system, used as the platform for several web-projects for Finnish companies. 	
	Nordlogic, Cluj-Napoca, Romania	04/2005 - 12/2005
	<ul style="list-style-type: none"> • Individually designed and implemented an intranet application for issue tracking and customer relations management. The application handles most internal processes and data of the company. Since 2006 it is further developed and sold by Nordlogic to small- and medium-sized companies. 	
	WikipediaVision: Real-time visualization of anonymous edits to Wikipedia and the geographic location they are from (covered on National Public Radio, online editions of Wired, The Atlantic, Libération, O'Reilly Radar, New Scientist, Chip.de and hundreds of other blogs/news sources). Exhibited at Museum für Kommunikation in Bern, Switzerland (April-August 2009). http://www.LKozma.net/wpv	
	Nebulo.ro: A site for learning Hungarian language, designed for Romanian-speakers - http://www.nebulo.ro	
	Other projects: FishEyeTabs, Reverse autocomplete, BookBox, Color-changing links, Soundsabitlike.com (some with over 100,000 downloads or visitors) - http://www.LKozma.net/projects	
	Pro-bono programming for non-profits (www.szka.org , www.saferworld.ca , www.wikimedia.de) and no-frills web projects (www.fordito.ro , www.varosfalva.ro).	

PUBLICATIONS	<p>László Kozma, Alexander Ilin, Tapani Raiko: Binary Principal Component Analysis in the Netflix Collaborative Filtering Task, In Proceedings of IEEE International Workshop on Machine Learning for Signal Processing (MLSP), 2009, Grenoble, France.</p> <p>László Kozma, Arto Klami, Samuel Kaski: GaZIR: Gaze-based Zooming interface for Image Retrieval, International Conference on Multimodal Interfaces (ICMI-MLMB), 2009, Cambridge, MA, USA.</p> <p>Master's thesis: A proactive interface for image retrieval, Helsinki University of Tech., May 2009.</p> <p>Diploma engineer's thesis: Computer Vision in Optical Inspection of Printed Circuit Boards, Technical University of Cluj-Napoca, July 2006. (Work partly done at HAMK and InnoForss in Finland).</p>
COURSES/VISITS	<p>TNG Technology Consulting firm, Munich, Germany 01/2008 Invited talk on WikipediaVision</p> <p>Summer Academy "Simulation Technologies", with DAAD support 09/2005 Petrovac, Montenegro Attended courses, presented the talk "Computer Architectures. Performance Measures."</p> <p>English certificates 2005 TOEFL CBT - 290 (out of 300) GRE (Quantitative/Verbal/Analytical) - 800/640/5.0 (max. 800/800/6.0)</p>
TERM PROJECTS	<p>HUT, Finland 2007 - 2009</p> <ul style="list-style-type: none"> • Implementing a latent-variable model based on PCA with missing values for collaborative filtering • Implementing and testing several data mining/machine learning algorithms, analyzing various data sets • Miscellaneous assignments as part of coursework: computer vision, cryptography, distributed computing, information networks, game theory, natural language processing, bioinformatics, combinatorial algorithms, optimization methods, visualization. • Seminar talks on different algorithms and research papers <p>TUC-N, Romania 2001 - 2006</p> <ul style="list-style-type: none"> • Coursework: broad range of topics in computer science, software and hardware engineering, mathematics. • Visualisation of particle trajectories in gravitational/electric field • Parallel implementation of the Hough-transform • Detecting road-boundaries on images from a vehicle-mounted camera - with another student • Encryption circuit using pseudo-random generators - with another student • Convolution filter with configurable kernel for image processing • Implementation of an RSA-based authentication protocol - in group • Boolean expression simplifier
TECHNICAL SKILLS	<p>Programming: C, Java, Php, HTML/CSS/Javascript (preferred) C++, Perl, Python, Prolog, Lisp/Scheme (familiar) Scientific computing, data visualization: Matlab, R, Mathematica, \LaTeX Relational databases (SQL), Parallel programming (MPI), Graphics, User Interfaces, Compilers Logic design basics: Xilinx ISE, VHDL, Active-Hdl Development: various IDEs, specification, bug tracking, source control, testing, documentation. Server administration and scripting on Unix/Linux systems.</p>
LANGUAGES	<p>English (fluent), Romanian (fluent), Hungarian (native), German (conversational), Finnish (fair)</p>
OTHER ACTIVITIES	<ul style="list-style-type: none"> • In 2006 I helped in the programming part of an image processing thesis involving cortical surface reconstruction from MRI images using deformable models • In high school I took part in various mathematics contests, contributed to math gazettes, I frequently submit solutions to the IBM Research online challenge • Occasionally translated technical documents and interpreted between English/Hungarian/Romanian
HOBBIES	<p>Puzzles, board games, football, long-distance running, juggling, literature, languages/linguistics, art/history</p>