

# Curriculum Vitae

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**Highest Qualification: M.Sc. degree in Technical Informatics  
(Computer Science)**



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## Professional Experience:

2007 – Pázmány Péter Catholic University

**Research assistant**

March - August 2008, visit to University of Notre Dame, Indiana, USA  
Development of an algorithmic framework for many-core computing systems

December 2006 - February 2007, project at Goethe-Universität Frankfurt, Germany

Industrial visual safety system research using high frame-rate cameras

2005 – Computer and Automation Research Institute, Hungarian Academy of Science,

**Research assistant**

Participation in ALFA project

Development of visual navigation autopilot for micro air vehicles

2003 – 2004 IT Consult Ltd.

**Application developer**

Participation in TeleSense project

2D/3D Echocardiographic diagnostic system

## Education:

2004 – Pázmány Péter Catholic University, Faculty of Information Technology,  
Multidisciplinary Doctoral School

**Graduate studies towards Ph.D. in Information Technology (in progress)**

Program: Analogic and Neuromorph Computers

- Member of the Robotics Laboratory

1998 – 2003 Budapest University of Technology and Economics (BME),

Faculty of Electrical Engineering and Informatics, Technical Informatics major

**M.Sc. degree in Technical Informatics**

Thesis: Laser Range-Finder and Monocular Image Processing

In 2002 participation: International Cultural and Academic Meeting of Engineering Students, Istanbul

**Scientific Interest:**

Image processing in robotics, optical flow analysis, embedded image processing devices, medical imaging, many-core computing systems

**Languages:**

Hungarian, native

English, intermediate level, good working knowledge

**Publications:****1. Publications connecting to the Ph.D. dissertation****a. In Journal, book chapter**

- [1] B.G. Soós, A. Rák, J. Veres, and G. Cserey, “GPU boosted CNN simulator library for graphical flow based programmability,” *EURASIP Journal on Advances in Signal Processing*, vol. 2009, 2009, p. 11.
- [2] B.G. Soós, V. Szabó, and C. Rekeczky, “Elastic Grid Based Multi-Fovea Algorithm for Real-Time Object-Motion Detection in Airborne Surveillance,” *C. Bhaatar, W. Porod and T. Roska : Cellular Nanoscale Sensory Wave Computing*, Springer, 2009. – **in press**

**b. In Conference proceedings, Technical report**

- [3] B.G. Soós and C. Rekeczky, “Elastic Grid Based Analysis of Motion Field for Object-Motion Detection in Airborne Video Flows,” *Circuits and Systems, ISCAS 2007. IEEE International Symposium on*, 2007, pp. 617-620.
- [4] B.G. Soós, A. Rák, J. Veres, and G. Cserey, “GPU powered CNN simulator (SIMCNN) with graphical flow based programmability,” *Cellular Neural Networks and Their Applications, CNNA 2008. 11th International Workshop on*, 2008, pp. 163-168.
- [5] B.G. Soós, V. Szabó, and C. Rekeczky, *Multi-Fovea Architecture and Algorithms for Real-Time Object-Motion Detection in Airborne Surveillance*, Budapest, Hungary: Pazmány Peter Catholic University, 2009.

**2. Further publications****c. Coauthored**

- [6] A. Rák, B.G. Soós, and G. Cserey, “Stochastic Bitstream Based CNN and its Implementation of FPGA ,” *International Journal Circuit Theory and Applications*, vol. published online, Nov. 2008.
- [7] Z. Szálka, B. G. Soós, D. Hillier, L. Kék, G. Andrásy, and C. Rekeczky, “Space-time Signature Analysis of 2D Echocardiograms Based on Topographic Cellular Active Contour Techniques,” *Cellular Neural Networks and Their Applications, 2006. CNNA '06. 10th International Workshop on*, 2006.
- [8] P. Bolla, B.G. Soós, „*Distance And Intensity Image-Based Object Recognition System*”, International Cultural and Academic Meeting of Engineering Students 2002, Istanbul, 2002