Curriculum Vitae

Name: **Soós, Balázs Gergely**
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http://digitus.itk.ppke.hu/~soos

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

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, Istambul

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. Andrássy, 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, Istambul, 2002