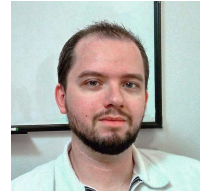


Péter Bodnár, PhD

CONTACT INFORMATION

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RESEARCH INTERESTS

Image processing, object detection, image classification, pattern recognition, feature extraction, soft computing, machine learning, Fuzzy logic

EDUCATION

University of Szeged,

PhD, Summa Cum Laude, Computer Science, August 2011 – 2016

- Thesis: *Image analysis methods for localization of visual codes*
- Advisor: László G. Nyúl, Associate Professor
- Area of Study: Image processing, feature extraction, machine learning

MSc, Technical Informatics, 2005 – 2011

- Thesis Topic: *An Interactive Framework for Digital Technics*
- Advisor: István Matijevics
- Area of Study: Digital technics

SELECTED CONFERENCE PUBLICATIONS

Péter Bodnár and László G Nyúl. Localization of visual codes using fuzzy inference system. In *VISAPP 2015 Proceedings of the 10th International Conference on Computer Vision Theory and Applications*, pages 345–352. SciTePress, 2015

Péter Bodnár and László G Nyúl. QR code localization using boosted cascade of weak classifiers. In Mohamed Kamel and Aurélio Campilho, editors, *Image Analysis and Recognition*, volume 8814 of *Lecture Notes in Computer Science*, pages 338–345. Springer Berlin Heidelberg, 2014

Tamás Grósz, Péter Bodnár, László Tóth, and László G Nyúl. QR code localization using deep neural networks. In Moreau Eric Larsen Jan Mboup Mamadou, Adali Tülay, editor, *International Workshop on Machine Learning for Signal Processing*, Lecture Notes in Computer Science, 2014

Péter Bodnár, Tamás Grósz, László Tóth, and László G Nyúl. Localization of visual codes in the DCT domain using deep rectifier neural networks. In Madani K., editor, *International Workshop on Artificial Neural Networks and Intelligent Information Processing*, Lecture Notes in Computer Science, pages 37–44, 2014

Péter Bodnár and László G Nyúl. A novel method for barcode localization in image domain. In Mohamed Kamel and Aurélio Campilho, editors, *Image Analysis and Recognition*, volume 7950 of *Lecture Notes in Computer Science*, pages 189–196. Springer Berlin Heidelberg, 2013

TEACHING
EXPERIENCE

University of Szeged

Teaching Assistant

From September 2007 to present

- Computer Programming Laboratory: Students learn the basic and advanced methodology of programming. They obtain skills with C language, OOP knowledge with Java and C++, and they get familiar with visual concepts using OpenGL and Microstation.
- Information Technology Basics Laboratory: Students learn the basics of Information Technology as they relate to the computer technician. It covers different software applications like Microsoft Word, Excel and PowerPoint. They also learn about interactive boards.
- Engineering Laboratory: Students learn about electronics using breadboards and the TINA simulation software. They also get introduced to the basics of control engineering using Matlab. Half of the semester is spent at the engineering lab, experimenting with transistors, relays, motors and pneumatic applications.

SERVICE

Computer Programming:

- C, C++, C#, Java
- OpenCV (C++, Java), OpenCL (JOCL), OpenGL (JOGL, SharpGL)
- Fuzzy (FuzzyLite, FIS, FCL)
- PHP, XHTML, HTML5, CSS3, XML
- SQL (SQLite, MySQL, PostgreSQL)
- MVC frameworks (CodeIgniter, Kohana)
- CMS frameworks (Drupal, Joomla, Open-realty, SohoAdmin)
- JavaScript (jQuery, Ajax, JSON, ExtJS)
- Flash/ActionScript (2.0, 3.0)

Version Control and Software Configuration Management:

- SVN, Git

Desktop Editing and Productivity Software:

- Programming: Eclipse, Code::Blocks, PhpStorm, CLion
- Typography and visualization: L^AT_EX, B_IB_TE_X, T_EX_Maker, TikZ, GNUPlot
- Document creation: Microsoft Office, OpenOffice.org, LibreOffice, Google Docs

Operating Systems:

- Linux, Microsoft Windows family

AWARDS,
FELLOWSHIPS

- “The best talk of the session”: Conference of PhD Students in Computer Science, 2012.
- Second prize for the group project work: Summer School of Image Processing, 2012.
- “Excellent talk”: Conference of PhD Students in Computer Science, 2014.
- Predoctoral Fellowship at University of Szeged, Hungary, 2014.

MEMBERSHIPS

- 2012– John von Neumann Computer Society (NJSzT)
- 2012– Hungarian Association for Image Analysis and Pattern Recognition (KÉPAF)
- 2014 – 2015 INSTICC Institute for Systems and Technologies of Information, Control and Communication
- 2017– member of public body of Hungarian Academy of Sciences (MTA)

REFERENCES
AVAILABLE TO
CONTACT

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