

# Zalán Péter BODÓ, Ph.D.

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- Citizenship:** Romanian
- Date of Birth:** 16<sup>th</sup> of February, 1981
- Place of Birth:** Satu Mare (Szatmárnémeti), Romania
- Working positions:** 2017–present: Associate Professor, Department of Computer Science, Babeş-Bolyai University, Cluj-Napoca  
2011–2017: Lecturer/Assistant Professor, Department of Computer Science, Babeş-Bolyai University, Cluj-Napoca  
2008–2011: Teaching Assistant, Department of Computer Science, Babeş-Bolyai University, Cluj-Napoca
- Education:** Ph.D., Faculty of Mathematics and Computer Science, Babeş-Bolyai University, Cluj-Napoca. Supervisor: Dr. Prof. Zoltán Kása, 2005–2009.  
Master of Science Degree (Intelligent Systems), Faculty of Mathematics and Computer Science, Babeş-Bolyai University, Cluj-Napoca, Romania, 2003–2004.  
Bachelor of Science Degree, Faculty of Mathematics and Computer Science, Babeş-Bolyai University, Cluj-Napoca, Romania, 1999–2003.
- Languages:** Hungarian (mother tongue)  
Romanian (fluent)  
English (fluent)
- Research memberships, grants:** 2005–present: Member of the DataMin research group (website: <http://datamin.ubbcluj.ro>)  
2016–: POC project member, title: Dezvoltare automată de software prin abstractizare în modele computaționale profunde, distribuite (AutoWare), project code: P\_37\_679  
2012–2016: PCCA project member, title: Metode de îmbunătățire a evaluării cercetării prin analiza rețelelor științifice, project code: PN-II-PT-PCCA-2011-3.2-0895  
2011–2014: CNCSIS-TE, project member, title: Non-parametric methods in machine learning: application to robotics and data analysis (Metode neparametrice în instruirea automată a mașinilor: aplicații în robotică și analiza datelor), project code: PN-II-RU-TE-2011-3-0278

2007–2011: CNMP project member, title: Automated robotic control using spiking neural networks (Metode de control al roboților autonomi folosind rețele neuronale cu pulsuri), project code: NEUROBOT 11-039/10.04.2007

2007–2008: CNCSIS-TD project coordinator, title: Learning Machines in Text Categorization (Mașini de învățare în categorizarea documentelor), project code: TD-35, contract no.: 485/1.10.2007

2005–2006: Applied research assistant in the frame of the Language Miner (Nyelvbányász) project for the Omega Consulting Ltd., Hungary (5 months).

2003–2004: Member of Sapia Research Group on topic Fractal Functions and Its Applications. Research coordinator: dr. Anna Soós.

**Prizes, awards:** 2016: Prize for Excellence in Teaching, Faculty of Mathematics and Computer Science, Babeș-Bolyai University.

2013: Prize for Excellence in Teaching, Faculty of Mathematics and Computer Science, Babeș-Bolyai University.

2010: Active Learning Challenge Award Presented to Zalán Bodó, Zsolt Minier & Lehel Csató – First Place on the Document Classification Task (dataset D), Active Learning and Experimental Design Workshop, May 16, 2010, Sardinia, Italy.

**Mobilities:** June 2016: 1 week ERASMUS teaching mobility grant, Derby, UK.  
March 2012: 1 month CEEPUS mobility grant, Szeged, Hungary.  
July 2011: 1 month CEEPUS mobility grant, Plovdiv, Bulgaria.  
July 2009: 1 month CEEPUS mobility grant, Plovdiv, Bulgaria.  
March 2008: 1 month CEEPUS mobility grant, Budapest, Hungary.  
March 2007: 1 month CEEPUS mobility grant, Szeged, Hungary.  
March 2005–May 2005: 3 months CEEPUS mobility grant, Debrecen, Hungary.  
March 2004–June 2004: 4 months Socrates mobility grant, Linz, Austria.  
March 2003: 1 month CEEPUS mobility grant, Szeged, Hungary.

**BSc thesis:** Fraktál alapú képtömörítés (Fractal image compression), 2003  
Scientific Advisor: Anna Soós

**MSc thesis:** Parallel fractal image compression, 2004  
Scientific Advisor: Anna Soós

**PhD thesis:** Semi-supervised learning with kernels, 2009  
Scientific Advisor: Zoltán Kása

**Publications:** **2017**  
ZALÁN BODÓ, BIPIN INDURKHYA. Software categorization using low-level distributional features. Accepted at SOMET 2017.

ZALÁN BODÓ, LEHEL CSATÓ. A hybrid approach for scholarly information extraction. Submitted to Studia Universitatis Babeș-Bolyai, Series Informatica, 2017.

**2015**

ZALÁN BODÓ, LEHEL CSATÓ. A note on label propagation for semi-supervised learning. *Acta Universitatis Sapientiae*, Vol. 7, No. 1, 2015, pp. 18–30.

**2014**

ZALÁN BODÓ, LEHEL CSATÓ. Linear Spectral Hashing. *Neurocomputing*, Volume 141, 2 October 2014, pp. 117–123.

ZALÁN BODÓ, LEHEL CSATÓ. Augmented hashing for semi-supervised scenarios. In *Proceedings of the 22th European Symposium on Artificial Neural Networks, Computational Intelligence and Machine Learning, 2014*, pp. 53–58.

ZALÁN BODÓ. Gépi tanulás gráfokkal. Tíz éves az ELTE Eötvös József Collegium Informatikai Műhelye, Eötvös József Collegium, Budapest, 2014, pp. 61–78.

**2013**

ZALÁN BODÓ, LEHEL CSATÓ. Linear Spectral Hashing. In *Proceedings of the 21th European Symposium on Artificial Neural Networks, Computational Intelligence and Machine Learning, 2013*, pp. 303–308.

**2012**

ZALÁN BODÓ, LEHEL CSATÓ. Improving Kernel Locality-Sensitive Hashing Using Pre-Images and Bounds. In *Proceedings of IJCNN, 2012*, pp. 2710–2717.

ZALÁN BODÓ, ZSOLT MINIER, LEHEL CSATÓ. Active Learning with Clustering. *Active Learning Challenge: Challenges in Machine Learning*, Volume 6, Microtome Publishing, 2012, pp. 141–154.

**2011**

ZALÁN BODÓ, ZSOLT MINIER, LEHEL CSATÓ. Active Learning with Clustering. *JMLR Workshop and Conference Proceedings: Volume 16, (Active Learning and Experimental Design workshop, May 16, 2010, Sardinia, Italy) 2011*, pp. 127–139.

**2010**

ZALÁN BODÓ, LEHEL CSATÓ. Hierarchical and Reweighting Cluster Kernels for Semi-Supervised Learning. *Int. J. of Computers, Communications & Control*, Vol. V (2010), No. 4, pp. 469–476.

**2009**

ZALÁN BODÓ, ZSOLT MINIER. Semi-supervised Feature Selection with SVMs. In *Proceedings of the 2nd 'Knowledge Engineering: Principles and Techniques' Conference, Cluj-Napoca, Romania, 2009*, pp. 159–162.

LEHEL CSATÓ, ZALÁN BODÓ. Decomposition Methods for Label Propagation. In *Proceedings of the 2nd 'Knowledge Engineering: Principles and Techniques' Conference, Cluj-Napoca, Romania, 2009*, pp. 127–130.

**2008**

ZALÁN BODÓ. Hierarchical cluster kernels for supervised and semi-supervised learning. In Proceedings of the IEEE 4th International Conference on Intelligent Computer Communication and Processing, Cluj-Napoca, Romania, 2008, pp. 9–16.

ZALÁN BODÓ, ZSOLT MINIER. On Supervised and Semi-Supervised K-Nearest Neighbor Algorithms. Presented at the 7th Joint Conference on Mathematics and Computer Science, Cluj-Napoca, Romania, 2008; appeared in STUDIA UNIV. BABEȘ-BOLYAI, INFORMATICA, Volume LIII, Number 2, Cluj-Napoca, 2008, pp. 79–92.

#### 2007

ZALÁN BODÓ, ZSOLT MINIER, LEHEL CSATÓ. Text Categorization Experiments Using Wikipedia. In Proceedings of the 1st 'Knowledge Engineering: Principles and Techniques' Conference, Cluj-Napoca, Romania, 2007, pp. 66–72

ZSOLT MINIER, ZALÁN BODÓ, LEHEL CSATÓ. Wikipedia-based Kernels for Text Categorization. Proceedings of the 9th International Symposium on Symbolic and Numeric Algorithms for Scientific Computing, Timișoara, Romania, 2007, pp. 157–164

#### 2006

ZSOLT MINIER, ZALÁN BODÓ, LEHEL CSATÓ. Segmentation-based feature selection for text categorization. In Proceedings of the IEEE 2nd International Conference on Intelligent Computer Communication and Processing (ICCP), Cluj-Napoca, Romania, 2006, pp. 53–59

#### 2004

ZALÁN BODÓ, ANNA SOÓS. A New Approach to IFS Bounding, In *Seminar on Numerical and Statistical Calculus*, Babeș-Bolyai University, Faculty of Mathematics and Computer Science, Department of Applied Mathematics, Cluj-Napoca, 2004, pp. 43–55.

ZALÁN-PÉTER BODÓ. Maximal Processor Utilization in Parallel Quadtree-Based Fractal Image Compression on MIMD Architectures, STUDIA UNIV. BABEȘ-BOLYAI, INFORMATICA, Volume XLIX, Number 2, Cluj-Napoca, 2004, pp. 3–16.

#### Books/ book chapters:

BODÓ ZALÁN. Fordítóprogramok szerkesztése Flex és Bison segítségével. Erdélyi Múzeum-Egyesület, Kolozsvár, 2014 (ISBN 978-606-8178-98-1/978-606-8178-99-8).

CSATÓ LEHEL, BODÓ ZALÁN. Neurális hálók és a gépi tanulás módszerei. Kolozsvári Egyetemi Kiadó, 2008.

#### Translations:

Translation from English to Hungarian of the book “Applied Dimensional Analysis and Modeling” (*Dimenzióanalízis és alkalmazott modellelmélet*) by Thomas Szirtes. Appeared at Typotex ([www.typotex.hu](http://www.typotex.hu)) in 2006; joint work with Anna Soós

#### Invited talks:

15. A Magyar Tudomány Napja Erdélyben, *Oknyomozó tudomány*, 25th of November, 2016, Cluj-Napoca, Romania: “Költséghatékony osztályozás: a félig felügyelt gépi tanuló algoritmusok”

11th Joint Conference on Mathematics and Computer Science, 20–22nd of May, 2016, Eger, Hungary: “Similarity and Kernels in Machine Learning”.

**Conferences  
attended:**

A Magyar Tudomány Napja Erdélyben 2016  
MACS 2016  
A Magyar Tudomány Napja Erdélyben 2015  
A Magyar Tudomány Napja Erdélyben 2014  
ESANN 2014  
ESANN 2013  
A Magyar Tudomány Napja Erdélyben 2012  
WCCI/IJCNN 2012  
A Magyar Tudomány Napja Erdélyben 2010  
AISTATS 2010 (Active Learning Workshop)  
KEPT 2009  
MACS 2008  
ICCP 2008  
KEPT 2007  
SYNASC 2007  
ICCP 2006  
Zilele Academice Clujene 2006

**Didactical  
activities:**

2016–2017, II. semester: Artificial Intelligence labs & seminars, Information Theory  
2016–2017, I. semester: Formal Languages and Compiler Techniques, Software Metrics and Quality Assurance, Collective Projects  
2015–2016, II. semester: Artificial Intelligence labs, Object-Oriented Programming labs, Methods of natural language processing  
2015–2016, I. semester: Formal Languages and Compiler Techniques, Information Retrieval, Software Metrics and Quality Assurance, Collective Projects  
2014–2015, II. semester: Object-Oriented Programming labs, Artificial Intelligence labs  
2014–2015, I. semester: Formal Languages and Compiler Techniques, Collective Projects, Software Metrics and Quality Assurance  
2013–2014, II. semester: Object-Oriented Programming labs, Artificial Intelligence labs, Individual Projects  
2013–2014, I. semester: Formal Languages and Compiler Techniques (courses + seminars + labs)  
2012–2013, II. semester: Collective Projects, Object-Oriented Programming labs, Artificial Intelligence labs  
2012–2013, I. semester: Formal Languages and Compiler Techniques (courses + seminars + labs); Information Theory (courses + seminars)  
2011–2012, II. semester: Collective Projects, Object-Oriented Programming labs, Artificial Intelligence labs  
2011–2012, I. semester: Formal Languages and Compiler Techniques (courses + seminars + labs); Information Theory (courses + seminars)  
2010–2011, II. semester: Artificial Intelligence seminars & labs; Object-Oriented Programming labs; Collective Projects

2010–2011, I. semester: Formal Languages and Compiler Techniques (courses + seminars + labs); Information Theory (courses + seminars); Individual Projects  
 2009–2010, II. semester: Artificial Intelligence seminars & labs; Object-Oriented Programming labs; Collective Projects  
 2009–2010, I. semester: Formal Languages and Compiler Techniques seminars & labs; Individual Projects; Graph Theory labs  
 2008–2009, II. semester: Object-Oriented Programming labs; Artificial Intelligence seminars & labs; Evolutionary Programming; Collective Projects  
 2008–2009, I. semester: Formal Languages and Compiler Techniques seminars & labs; L<sup>A</sup>T<sub>E</sub>X; Distributed Operating Systems labs; Individual Projects  
 2007–2008, I. semester: Formal Languages and Compiler Techniques seminars & labs; Evolutionary Algorithms labs  
 2006–2007, II. semester: Compilers laboratories; Evolutionary Algorithms laboratories  
 2006–2007, I. semester: Formal Languages laboratories; Individual Project  
 2006–2007, I. semester: Formal Languages laboratories; Individual Project  
 2005–2006, II. semester: Compiler Construction Using Flex and Bison (laboratories)  
 2005–2006, I. semester: Graph Theory laboratories  
 2004–2005, I. semester: Graph Theory seminars

**Programming skills:**

C, C++, Java  
 Perl, Python  
 Matlab