

# Zalán Péter BODÓ, Ph.D.

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[Updated: September 7, 2018]

- 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  
January 2017–June 2018: Research Associate, Deep Computational Intelligence group, Romanian Institute of Science and Technology (RIST), 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>)  
2017–2018: POC (Competitiveness Operational Programme of the European Regional Development Fund and the Romanian Government, 2014–2020) project member, title: Dezvoltare automată de software prin abstractizare în modele computaționale profunde, distribuite (AutoWare), project ID P\_37.679, MySMIS code 103319, contract no. 157/16.12.2016.

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 Sapiientia 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:****2018**

ZALÁN BODÓ, ESZTER SZILÁGYI. Connecting the Last.fm Dataset to LyricWikia and MusicBrainz. Lyrics-based Experiments in Genre Classification. Submitted to Acta Universitatis Sapientiae, Informatica, 2018.

ZALÁN BODÓ. A CiteSeerX-based dataset for record linkage and metadata extraction. Accepted for presentation at SYNASC2018.

**2017**

ZALÁN BODÓ, BIPIN INDURKHYA. Software categorization using low-level distributional features. New Trends in Intelligent Software Methodologies, Tools and Techniques. (Proceedings of the 16th International Conference on Intelligent Software Methodologies, Tools, and Techniques, September 26–28, Kitakyushu, Japan.) Frontiers in Artificial Intelligence and Applications, vol. 297, IOS Press, 2017, pp. 88–98.

ZALÁN BODÓ, LEHEL CSATÓ. A hybrid approach for scholarly information extraction. Studia Universitatis Babeş-Bolyai Informatica, Vol. 62, No. 2, 2017, pp. 5–16.

**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. BABEŞ-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:**

MACS 2018  
SOMET 2017  
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  
ICCP 2006  
Zilele Academice Clujene 2006

**Didactical  
activities:**

2017–2018, II. semester: Artificial Intelligence labs, Information Theory, Methods of natural language processing  
2017–2018, I. semester: Formal Languages and Compiler Techniques, Software Metrics and Quality Assurance, Collective Projects  
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