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Date and Place of Birth

December 14, 1979, Pristina, Serbia

Education

2008–2014 PhD Studies at the Department of Computer Science, Faculty of Mathematics, University of Belgrade. PhD thesis "Contribution to text categorization methods: mathematical models and applications" under supervision of prof. Gordana Pavlović-Lažetić.

2005–2008 MSc at the Department of Computer Science, Faculty of Mathematics, University of Belgrade, Grade point average 10.0 (out of 10.0). Master thesis "XML database management of lexical resources", under supervision of prof. dr Gordana Pavlović-Lažetić.

1999–2004 Department of Computer Science, Faculty of Mathematics, University of Belgrade. Grade point average 9.62 (out of 10.00).

Awards and Honors

2002–2004 Scholarship "Support for Youth in Sciences Foundation of the Republic of Serbia".

2002 Norwegian government Scholarship as one of the top 500 students in Serbia.

Positions

2015–today Assistant professor at the Department for Computer Science, Faculty of Mathematics, University of Belgrade.

2016–2017 Industry Relations Coordinator

2004–2015 Teaching assistant at the Department for Computer Science, Faculty of Mathematics, University of Belgrade.

Courses:

- Database design
- Object-oriented programming (Programming language Java)
- Introduction to Computer Systems (Programming language C++)
- Programming 1 (Programming language C)
- Programming 2 (Programming language C)
- Introduction to Programming (Programming language C)
- Information Systems

Participation in research projects

2011–today Research project III47003 "INTELIS - Infrastructure for Technology Enhanced Learning in Serbia", supported by the Ministry of Science of the Republic of Serbia.

2006–today Research project 144030 "Automated Reasoning and Data Mining", supported by the Ministry of Science of the Republic of Serbia.

2005 Research project 1858 "Bioinformatics", supported by the Ministry of Science of the Republic of Serbia.

Research Interests

Natural language processing, information retrieval and document classification using machine learning and knowledge-based approaches.

Bibliography

- PhD thesis, *Contribution to text categorization methods: mathematical models and applications*, May 2014.
url: http://www.matf.bg.ac.rs/~jgraovac/publications/jg_phd.pdf
- Master Thesis, *XML database management of lexical resources*, September 2008.
url: <http://www.matf.bg.ac.rs/~jgraovac/publications/jt.pdf>

Journal papers

- J. Graovac, M. Mladenović, I. Tanasijević, *NgramSPD: Exploring Optimal N-gram Model for Sentiment Polarity Detection in Different Languages*, **Intelligent Data Analysis** Accepted, 2019.
- J. Graovac, J. Kovačević, G. Pavlović-Lažetić, *Hierarchical vs. flat n-gram-based text categorization: can we do better?*, **Computer Science and Information Systems: ComSIS**, Vol. 14, No. 1, Pages 103-121, 2017.
- J. Graovac, J. Kovačević, G. Pavlović-Lažetić, *Language Independent n-Gram-Based Text Categorization with Weighting Factors: A Case Study*, **JIDM - Journal of Information and Data Management**, Vol. 6, No. 1, Pages 4-17, 2015.
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- J. Graovac, *A variant of n-gram based language-independent text categorization*, **Intelligent Data Analysis**, Vol. 18, No. 4, pages 677–695, 2014.
- M. Vujošević-Janičić, J. Tomašević, P. Janičić, *Random k-GD-SAT Model and its Phase Transition*, **Journal of Universal Computer Science**, Volume 13, Issue 4, pages 572–591, 2007.
url: http://www.jucs.org/jucs_13_4/random_k_gd_sat
- M. Živković, S. Malkov, S. Zarić, M. Vujošević-Janičić, J. Tomašević, G. Predović, N. Blažić, M. V. Beljanski, *Statistical Dependence of Protein Secondary Structure on Amino Acid Bigrams*, **Chemical Industry and Chemical Engineering Quarterly**, 12(1), 82, pages 82–85, 2006.
url: <http://www.matf.bg.ac.rs/~jgraovac/publications/sdp.pdf>
- J. Graovac, *Wordnet-based text categorization technique*. **INFOtheca - Journal of Information and Library Science**, Vol. 14, No. 2, pages 2–17, 2014.
url: <http://infoteka.unilib.rs/2013/br.2/eng/Infotheca-2-2013-Jelena-Graovac.pdf>
- J. Kovačević, J. Graovac, *Application of a Structural Support Vector Machine method to N-gram based text classification in Serbian*, **INFOtheca - Journal of Information and Library Science**, Vol. 16, No. 1, 2015.
url: http://infoteka.bg.ac.rs/pdf/Eng/2016/INFOTHECA_XVI_1_2016_1a.pdf
- J. Kovačević, J. Graovac, *Prospective automated hierarchical classification of digitized documents*, **Review of the National Center for Digitization**, Accepted, 2015.

Books and books chapters

- Milena Vujošević Janičić, Jelena Graovac, Nina Radojičić, Ana Spasić, Mirko Spasić, Anđelka Zečević: **Programiranje 2 - Zbirka zadataka sa rešenjima (u programskom jeziku C)**. Izdavač: Matematički fakultet, ISBN 978-86-7589-107-9, 2016.
- P. Quaresma, P. Janičić, J. Tomašević, M. Vujošević-Janičić, D. Tošić, *XML-based Format for Descriptions of Geometrical Constructions and Geometrical Proofs*, **Communicating Mathematics in Digital Era, CMDE 2006**, Aveiro, Portugal, August 15-18, 2006.
url: <http://www.matf.bg.ac.rs/~jgraovac/publications/xmlFG.pdf>

Conference papers

- J. Graovac, J. Kovačević, and G. Pavlović Lažetić, *Machine learning-based approach to help diagnosing Alzheimer's disease through spontaneous speech analysis*, Book of Abstracts, **Belgrade BioInformatics Conference 2016**, Belgrade, Serbia, 2016. url: http://alas.matf.bg.ac.rs/~websites/bioinfo/wp-content/uploads/2015/11/BelBI2016.book_of_abstracts.v3.pdf
- J. Graovac, G. Pavlović-Lažetić, *Language-Independent Sentiment Polarity Detection in Movie Reviews: A Case Study of English and Spanish*, **6th International Conference ICT Innovations 2014**, Web Proceedings ISSN 1857-7288, pages 13–22, Ohrid, Macedonia, 2014.
url: <http://poincare.matf.bg.ac.rs/~jgraovac/publications/jgSPD.pdf>
- J. Graovac, *Text categorization using n-gram based language independent technique*, **35th Anniversary of Computational Linguistics in Serbia**, Book of Abstracts, to appear in the Proceedings of the Conference, 2013.

- J. Graovac, *Serbian text categorization using byte level n-grams*, In **Proceedings of CLoBL 2012: Workshop on Computational Linguistics and Natural Language, 5th Balkan Conference in Informatics**, ISBN: 978-86-7031-200-5, pages 93–97, Novi Sad, Serbia, 2012.
url: <http://www.matf.bg.ac.rs/~jgraovac/publications/stcbtn.pdf>
- G. Pavlović-Lažetić, J. Tomašević, *Ontology-driven conceptual document classification*, **KDIR 2010 - International Conference on Knowledge Discovery and Information Retrieval**, 25-28 10, Valencia, Spain; In Proceedings of the International Conference on Knowledge Discovery and Information Retrieval, pages 383–386, 2010.
url: <http://www.matf.bg.ac.rs/~jgraovac/publications/odcdc.pdf>
- J. Tomašević, G. Pavlović-Lažetić, *Productivity of concepts in Serbian Wordnet*, in Proceedings of the **11th International Multiconference INFORMATION SOCIETY - IS 2008** Volume C: Proceedings of the Sixth Language Technologies Conference, EDs. Tomaž Erjavec, Jerneja Žganec Gros, Oct. 16th - 17th, 2008, Ljubljana, Slovenia, pages 86–91, 2008.
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- J. Tomašević, M. Vujošević-Janičić, *TemidaLib – Multiprecision Arithmetic Library*, Zbornik radova **SYMOPIS 2006**, Banja Koviljača, 2006.
- M. Vujošević-Janičić, J. Tomašević, *Phase Transition In Random SAT Problems*, Zbornik radova **SYMOPIS 2006**, Banja Koviljača, 2006.
- M. Vujošević-Janičić, J. Tomašević, M. Živković, S. Malkov, G. Predović, N. Blažić, M. V. Beljanski, S. Zarić, *Distribution of distances of connected amino acid pairs in proteins*, Poster prikazan na **1st South East European Congress of Chemical Engineering**, Faculty of Technology and Metallurgy, Belgrade, Serbia and Montenegro, 2005.
- Aleksić Tatjana, Denes Attila, Pap Zoltan, Račić Sanja, Radovanović Dragica, Tomašević Jelena, Vla Katarina, *Optimal crop distribution in Vojvodina*, **Proceedings of the Modelling Week**, Novi Sad, Srbija, 2005.

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