



Savo Tomović

FULL PROFESSOR | COMPUTER SCIENCE

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Education

PhD of Computer Science

Thesis: Algorithms and Data Structures for Identifying Association Rules in large Databases

Podgorica, Montenegro

UNIVERSITY OF MONTENEGRO

October 2008 - October 2011

Faculty of Natural Sciences and Mathematics

Postgraduate studies

Thesis: Data mining techniques for association rules in relational databases

Podgorica, Montenegro

UNIVERSITY OF MONTENEGRO

July 2006 - October 2007

Faculty of Natural Sciences and Mathematics

Graduate studies

UNIVERSITY OF MONTENEGRO

Podgorica, Montenegro

Faculty of Natural Sciences and Mathematics

September 2002 - July 2006

Experience

University of Montenegro

Podgorica, Montenegro

TEACHING ASSISTANT

October 2006 - May 2012

- Teaching assistant for the following subjects: Operating Systems, Compilers, Artificial Intelligence and Analytical Data Processing (Data Mining) at the Faculty of Natural Sciences,
- Teaching assistant for IT subjects at the faculties of Medicine, Civil Engineering and Biotechnology

University of Montenegro

Podgorica, Montenegro

ASSISTANT PROFESSOR

May 2012 - October 2017

- Professor for the following subjects: Principles of Programming at the Computer Science study program, Analytical data processing - Data Mining at the specialist study program of Computer Science at the Faculty of Natural Sciences,
- Computer Application at the Construction study program at the faculty of Civil Engineering
- Medical Informatics at the Dentistry study program at the Medical Faculty

University of Montenegro

Podgorica, Montenegro

ASSOCIATE PROFESSOR

October 2017 - July 2022

- Professor for the following areas: data analytics and modeling, programming and informatics.,

University of Montenegro

Podgorica, Montenegro

FULL PROFESSOR

July 2022 - present

- Professor for the following areas: data analytics and modeling, programming and informatics.,

University of Montenegro

Podgorica, Montenegro

HEAD OF THE STUDY PROGRAMS OF COMPUTER SCIENCE AND COMPUTER SCIENCE AND INFORMATION TECHNOLOGY AT THE FACULTY OF NATURAL SCIENCES AND MATHEMATICS

December 2013 - October 2015

University of Montenegro

Podgorica, Montenegro

DIRECTOR OF THE CENTER OF INFORMATION SYSTEM OF THE UNIVERSITY OF MONTENEGRO

October 2015 - October 2018

Montenegrin telecommunications operator Telecom

Podgorica, Montenegro

CONSULTANT

March 2015 - December 2015

- Consulted for activities related to data analysis in source systems, the way they are managed and transformed into DWH during the introduction of Amdocs system.

Datum Solutions

Podgorica, Montenegro

CONSULTANT

October 2016 - May 2021

- Conducted consulting activities for Data Science and Data warehousing projects.

International Bridge d.o.o

Podgorica, Montenegro

CONSULTANT

September 2020 - February 2021

- Conducted consulting activities for Data Science and Data warehousing projects.

Institute of Public Health of Montenegro

Podgorica, Montenegro

December 2020 - February 2021

- Audited existing information system and developed feasibility study for justifying implementation of the new information system
- Created new data warehouse for storing and analytical processing of records of citizens tested for the Covid-19 virus to track the development of the pandemic in Montenegro.

Skills

Programming Languages Python, C, C++, Prolog, Lisp

Tools and libraries scikit-learn, RabbitMQ, Pentaho tools

Additional skills SQL, LaTeX, Microsoft Office Tools, forensic expert in the field of informatics

Languages English, Russian

Job-related skills Strong mathematical background

Honours and awards

- Plaque of University of Montenegro in the field of technical and natural sciences (2006)
- Award for the best students, awarded by capital city (Podgorica) (2005)
- Prize for the best young scientist up to 35 years of age by the Ministry of Science (2012)

Publications

1. On the Number of Candidates in Apriori Like Algorithms for Mining Frequent Itemsets, S Tomovic, Balkan Journal of Applied Mathematics and Informatics 4 (2), 7-20, 2021
2. Aligning document layouts extracted with different OCR engines with clustering approach, S Tomovic, K Pavlovic, M Bajceta, Egyptian Informatics Journal 22 (3), 329-338, 2021
3. Patient length of stay analysis with machine learning algorithms, S Tomović, Computer Science and Information Systems 18 (3), 1001-1021, 2021
4. Perineural invasion on biopsy specimen as predictor of tumor progression in aging male treated with radical prostatectomy. Could we use it for pre-surgical screening?, M Vukovic, P Kavacic, A Magdelinic, P Nikomanis, S Tomovic, D Pelicic, The Aging Male 23 (5), 720-725, 2020
5. An approach for outlier and novelty detection for text data based on classifier confidence, N Pižurica, S Tomović, AI Communications 33 (3-6), 139-153, 2020
6. Computer-Based Validation of $3n+1$ Hypothesis for Numbers $3n-1$, S Kadic, S Tomovic, Tehnički vjesnik 26 (2), 289-293, 2019
7. An Efficient Itemset Representation for Mining Frequent Patterns in Transactional Databases, S Tomović, P Stanišić, Computing and Informatics 37 (4), 894-914, 2018
8. Data Mining Approach in Climate Classification and Climate Network Construction—Case Study Montenegro, S Tomović, P Stanišić, S Kadić, Tehnički vjesnik 25 (4), 1037-1043, 2018
9. Cognitive Approach in Document Indexing, S Tomović, K Pavlović, ASEM, 2018
10. Comparative Analysis of Classic Clustering Algorithms and Girvan-Newman Algorithm for Finding Communities in Social Networks, J Ljucović, T Vujičić, T Matijević, S Tomović, S Šćepanović, ENTRENOVA-ENTerprise REsearch InNOVation 2 (1), 24-31, 2016
11. The therapeutic potential of royal jelly in benign prostatic hyperplasia. Comparison with contemporary literature, B Pajovic, N Radojevic, A Dimitrovski, S Tomovic, M Vukovic, The Aging Male 19 (3), 192-196, 2016

12. Analyzing clusters in the University of Montenegro collaboration network, J Ljuccovic, S Tomovic, 2016 5th Mediterranean Conference on Embedded Computing (MECO), 264-267, 2016
13. Efficiently enumerating frequent itemsets using combinatorial number system, S Tomovic, P Stanisic, International Journal of Computer Mathematics: Computer Systems Theory, 2016
14. Identifying Scientific Collaboration Trends At The University Of Montenegro, S Tomović, I Ivanović, Mathematical modeling, 2016
15. Fast algorithm for enumerating frequent itemset pairs in database of transactions, S Tomovic, P Stanišić, 2015 4th Mediterranean Conference on Embedded Computing (MECO), 268-271, 2015
16. Upper bounds on the number of candidate itemsets in Apriori like algorithms, S Tomovic, P Stanišić, 2014 3rd Mediterranean Conference on Embedded Computing (MECO), 260-263, 2014
17. Frequent itemset mining as set intersection problem, P Stanišić, S Tomović, 2013 2nd Mediterranean Conference on Embedded Computing (MECO), 231-234, 2013
18. Frequent itemset mining using two-fold cross-validation model, P Stanišić, S Tomović, 2012 Mediterranean Conference on Embedded Computing (MECO), 229-232, 2012
19. Cross validation method in frequent itemset mining, S Tomovic, P Stanisic, Central European Conference on Information and Intelligent Systems, 2011
20. A New Rymon Tree Based Procedure For Mining Statistically Significant Frequent Itemsets, P Stanisic, S Tomovic, International Journal of Computers Communications & Control 5 (4), 567-577, 2010
21. An efficient procedure for mining statistically significant frequent itemsets, P Stanišić, S Tomović, Publications de l'Institut Mathématique 87 (107), 109-119, 2010
22. A new data structure for frequent itemset mining: Ts-treet, P Stanisic, S Tomovic, Proceedings of 4th South East European Doctoral Student Conference, 2009
23. Mining the most k-frequent itemsets with TS-tree, S Tomović, P Stanišić, Proceedings of the IADIS International Conference WWW/Internet 2009, 2009
24. Apriori multiple algorithm for mining association rules, P Stanišić, S Tomović, Information technology and control 37 (4), 2008
25. Mining association rules from transaction databases and Apriori multiple algorithm, P Stansic, S Tomovic, IADIS, 2008
26. Discovering large itemsets from transactional databases, S Tomović, P Stanišić, Info M 7 (27), 40-46, 2008
27. Mining Association Rules from Transactional Databases and Apriori Multiple Algorithm, P Stanišić, S Tomović, IADIS International Conference WWW/Internet, 2008