MSc Aleksandra S. Arsić

PERSONAL INFORMATION

Date of Birth:	June 14, 1990.
Place of Birth:	Požarevac, Serbia
Nationality:	Serbian
Languages:	English and Serbian
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EDUCATION

2016 - *: PhD studies in Faculty of Technical Sciences, module: Mathematics in Engineering, University of Novi Sad, Serbia

(advisor: prof. Miodrag Mihaljević)

2014 - *: PhD studies in Faculty of Mathematics, module: Informatics, University of Belgrade, Serbia

2013-2014: MSc (Master of Science in Faculty of Mathematics) module: Computer science and Informatics, University of Belgrade, Serbia

M.Sc. dissertation: *"The attack on the RC4 cipher in WEP protocol"*,

(advisor: prof. Miodrag Živković)

2009-2013: BS (Bachelor of Science in Faculty of Mathematics) module: Computer science and Informatics, University of Belgrade, Serbia

2005-2009: Požarevačka gimnazija

2003-2009: Regional center for talents

EMPLOYMENT HISTORY

April 2018 to date: Research assistant, Mathematical Institute of the Serbian Academy of Sciences and Arts

October 2013 - October 2018: Teaching assistant, Metropolitan University, Faculty of information technologies

January 2015 – April 2018: Research assistant trainee, Mathematical Institute of the Serbian Academy of Sciences and Arts

March 2015 – May 2015: Software Developer, Development center of Metropolitan University

June 2014 – January 2015: Software Developer, CS Networks

April 2013 - June 2013: Teacher of Mathematics, Belgrade Youth Office

EDUCATION DEVELOPMENT PROJECTS

Jan 2015 to date: Development of new information and communication technologies, based on advanced mathematical methods, with applications in medicine, telecommunications, power systems, protection of national heritage and education (Project III 44006)

OTHER PROJECTS

- Designing and developing website for Mathematical Institute SASA

- Serbia Forum project (http://www.serbia-forum.org/) - software developer

- KrosRTS, moderator of workshops for cultural heritage digitization dedicated to the children of Diaspora organized by Mathematical Institute SASA and KROS RTS, June 2016

- Design and develop web presentation "Documents about foreign politics of the Kingdom of Serbia 1903 – 1914" base on Serbia - forum software. Project realized in cooperation with Serbian Academy of Sciences and Arts and Mathematical Institute. http://diplprepiska.mi.sanu.ac.rs/

- Web presentation "DIGITAL NATIONAL LIBRARY OF SERBIA" - http://digitalna.nb.rs/

- Web presentation for Museum of Yugoslavia

- Project Digitization of the Journal of Filmworks (1968-1986) - http://filmskesveske.mi.sanu.ac.rs/

- Pilot project "Inclusion of financial literacy in the system of education and upbringing of the Republic of Serbia" - http://finpis.mi.sanu.ac.rs/

- Web presentation for Archives of Yugoslavia

- Blockchain Consensus Protocols – research

- Blockchain Application – research and development

ACTIVITIES AT UNIVERSITIES - **Teaching Activity**

Belgrade Metropolitan University, Belgrade, Serbia

(Teaching assistant since October 2013 to October 2018):

Bachelor study programs:

- CS101 Introduction to Object-Oriented Programming
- CS102 Objects and Data Abstraction
- CS103 Algorithms and Data Structures
- CS115 Discrete Structures
- CS323 C/C++ Programming Language
- IT120 Application Development
- IT350 Databases
- MA100 Calculus for Management
- MA101 Calculus 1
- MA103 Mathematics 1 for IT
- MA202 Calculus 2
- MA272 Business Statistics with Probability
- MA273 Probability and Statistics

CONFERENCES

1. Telekomunikacioni forum TELFOR 2015, Belgrade, Serbia, November 2015
2. Logic and Applications 2015 (LAP 2015), 4th Conference, Dubrovnik, Croatia, September 2015
3. Conference on e-Learning 2015, Metropolitan University, Belgrade, Serbia, September 2015
4. Logic and Applications 2016 (LAP 2016), 5th Conference, Dubrovnik, Croatia, September 2016
5. The Seventh International Conference on eLearning (eLearning-2016, Metropolitan University, Belgrade, Serbia, September 2016).
6. NCD, XIV conference "National Heritage Digitization and Digital Humanities",   Belgrade, September 2016
7. 6th National Conference "Verovatnosne logike i njihove primene" Belgrade, Serbia, 6. October 2016.

SEMINARS, EDUCATIONS

1. COSCH Training School on Heterogeneous visual data fusion techniques – acquistion and algorithms, Universuty of Szeged Institute of Informatics and held, Hungary, December 2015.
2. Workshop „Selected topics in spatial environmental modelling", Faculty of Civil Engineering, University of Belgrade, April 2015.
3. Belgrade Test Conference, 26 – 27 November, Belgrade 2016.
4. Bitcoin education, Bitcoin Association of Serbia, June 2017.
5. Reasoning web – summer school, London, United Kingdom, July 2017.
6. COST Training School on Symmetric Cryptography and Blockchain, 19 - 23 February 2018, Torremolinos, Spain

CERTIFICATIONS

1. Oracle Academy course – Java Fundamentals
2. Oracle Academy course – Java Programming
3. Oracle Academy course – Database Design and Programming with SQL

PUBLISHED PAPERS

1. Svetlana Cvetanović, Miroslava Raspopović, Aleksandra Arsić and Vuk Vasić, „Integration Software Architecture of e-Learning System with Facebook", Conference on e-Learning 2015, Metropolitan University, pp.42 - 46, Belgrade, Serbia, September 2015
2. Miloš Jordanski, Aleksandra Arsić and Milan Tuba, "Dynamic recursive subimage histogram equalization algorithm for image contrast enhancement", 2015 23rd Telecommunications Forum Telfor (TELFOR), Belgrade, 2015, pp. 819-822. doi: 10.1109/TELFOR.2015.7377591
3. Aleksandra Arsić, Miloš Jordanski and Milan Tuba, "Improved lip detection algorithm based on region segmentation and edge detection", 2015 23rd Telecommunications Forum Telfor (TELFOR), Belgrade, 2015, pp. 472-475. doi: 10.1109/TELFOR.2015.7377509
4. Aleksandra Arsić, Vladisav Jelisavčić and Miodrag Mihaljević, „Experimental Evaluation of Certain Securty Issues of Grain v1 Stream Cipher", IPSI BgD Transactions, July 2016 Volume 12 Number 2, pp. 37–45.
5. Aleksandra Arsić, Milan Tuba and Miloš Jordanski, "Fireworks algorithm applied to wireless sensor networks localization problem", 2016 IEEE Congress on Evolutionary Computation (CEC), Vancouver, BC, 2016, pp. 4038-4044. doi: 10.1109/CEC.2016.7744302

6. Miloš Jordanski, Milan Tuba and Aleksandra Arsić, "Improved weighted thresholded histogram equalization algorithm for digital image contrast enhancement using the bat algorithm", In book: Bio-Inspired Computation and Applications in Image Processing, pp.61-86, Elsevier, 2016 DOI: 10.1016/B978-0-12-804536-7.00004-1

7. Aleksandra Arsić, Aleksandra Zdravković, "Experimental Evaluation of Time-Memory Trade-Off Attack", 5th International Conference Logic and Applications (LAP 2016) September 19 - 23, 2016, Dubrovnik, Croatia

8. Vuk Vasić, Aleksandra Arsić, "Algorithm for personalized learning process", The Seventh International Conference on eLearning (eLearning-2016), Metropolitan University, pp. 23 – 27, Belgrade, Serbia, September 2016

9. Nebojsa Gavrilovic, Aleksandra Arsic, Dragan Domazet, Alok Mishra, "Algorithm for adaptive learning process and improving learners' skills in Java programming language", Computer Applications in Engineering Education 26(5): 1362-1382 (2018)

TECHNICAL SOLUTIONS

1. Web application "Documents about foreign politics of the Kingdom of Serbia 1903 – 1914", 2016 (M82)

2. Web application for storage and virtual presentation of digitized photo material Museum of Yugoslavia, 2016 (M82)

3. Methods and software for advance techniques for authentication in domains IoT and M2M, Miodrag Mihaljević, Aleksandra Arsić, Zoran Ognjanović and Aleksandar Perović, 2016 (M85)

4. "Method and software for advanced security techniques with asymmetric implementation complexity", Miodrag Mihaljević, Aleksandra Arsić, Vladisav Jelisavčić, 2017 (M85)

5. "Program system for digitization of the Journal of Filmworks (1968-1986)", Zoran Ognjanović, Aleksandra Arsić, Milan Todorović, Sandra Vujošević, Maja Novaković, Bojan Marinković, Milica Knežević, Nevena Daković, 2017 (M85)

6. "Method and software for one-way function in consensus protocols for blockchain technologies", Miodrag Mihaljević, Aleksandra Arsić, 2018 (M85)

7. "Software for implementation consensus protocols based on proof of inversion one-way function used by Ethereum platform", Milan Todorović, Miodrag Mihaljević, Aleksandra Arsić, 2018 (M85)