



Kosta Pavlović

MACHINE LEARNING RESEARCHER | SOFTWARE DEVELOPER

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Education

PhD of Computer Science

Thesis: Digital audio watermarking using deep neural networks

Podgorica, Montenegro

UNIVERSITY OF MONTENEGRO

November 2018 - present

Faculty of Natural Sciences and Mathematics

Master of Computer Science

UNIVERSITY OF MONTENEGRO

Podgorica, Montenegro

October 2016 - October 2018

Faculty of Natural Sciences and Mathematics

Bachelor of Computer Science

UNIVERSITY OF MONTENEGRO

Podgorica, Montenegro

September 2012 - July 2015

Faculty of Natural Sciences and Mathematics

Experience

University of Montenegro

Podgorica, Montenegro

TEACHING ASSISTANT

October 2016 - present

- Teaching assistant for the following subjects: Artificial Intelligence, Algorithms and Data Structures, Programming, Bioinformatics, Software Engineering, Information Systems, Distributed Computing

DoMen d.o.o

Podgorica, Montenegro

TEACHING ASSISTANT

October 2016 - present

- Preparing high school students for the International Olympiad in Informatics and the Balkan Olympiad in Informatics

Datum Solutions

Podgorica, Montenegro

CONSULTANT

October 2016 - December 2019

- Participated in developing a system for automatic document classification.
- Participated in developing a system for automatic document indexing and developed several tools for extracting information from scanned documents.
- Performed consulting activities in the development of a system for license plates recognition.
- Performed consulting activities in several data science projects for healthcare and finance.

Institute of Public Health of Montenegro

Podgorica, Montenegro

SOFTWARE DEVELOPER

December 2020 - February 2021

- Created data warehouse and developed a web application for storing and online analytical processing of records of citizens tested for the Covid-19 virus to track the development of the pandemic in Montenegro.

BonsAPPs Consortium

Europe, Horizon2020

TECHNICAL LEAD

January 2022 - July 2022

- Developed a deep learning based system for automatic detection and segmentation of defects on images of industrial parts.
- Compressed and optimized trained model for deployment on edge devices.

Skills

Programming Languages	Python, Java, C#, PHP, C, C++, Matlab, R, Javascript, Visual Basic, Prolog, Lisp
Frameworks	Tensorflow, Express, Django, Eclipse Modeling Framework
Tools and libraries	OpenCV, scikit-learn, RabbitMQ, Pentaho tools
Additional skills	SQL, HTML, CSS, Git, LaTeX, Microsoft Office Tools
Languages	Serbian, English
Job-related skills	Strong mathematical background, analytical approach to problem solving

Honours and awards

- Plaque of University of Montenegro in the field of technical and natural sciences (2016)
- Award for the best students, awarded by capital city (Podgorica) (2015)
- Annual student award for best students of the University of Montenegro (2014)
- Award at the national competition in computer science (2011)
- Award at the knowledge Olympiad, (2011)
- Member of Montenegrin team at one International Olympiad in Informatics held in Thailand in 2011.
- Member of Montenegrin team at three Balkan Olympiads in Informatics held in Montenegro (2010), in Romania (2011), in Serbia (2012)

Publications

- [1] Kosta Pavlović, Slavko Kovačević, Igor Djurović, and Adam Wojciechowski. Robust speech watermarking by a jointly trained embedder and detector using a DNN. *Digital Signal Processing*, 122:103381, 2022.
- [2] Kosta Pavlović, Slavko Kovačević, and Igor Djurović. Speech watermarking using deep neural networks. In *Proceedings of 28th Telecommunications Forum (TELFOR)*, pages 292–295, 2020.
- [3] Savo Tomovic, Kosta Pavlovic, and Milija Bajceta. Aligning document layouts extracted with different ocr engines with clustering approach. *Egyptian Informatics Journal*, 2020.
- [4] Savo Tomovic and Kosta Pavlovic. *Long life learning system for document understanding: Document understanding in cognitive manner*. Scholars' Press, 2020.
- [5] Savo Tomovic and Kosta Pavlovic. Cognitive approach in document indexing. *Eastern European Journal for Regional Studies (EEJRS)*, 4(1):67–75, 2018.
- [6] Kosta Pavlovic and Aleksandar Popovic. Jezik metar. In *Informacione Tehnologije, Žabljak*, 2018.
- [7] Kosta Pavlović and Goran Šuković. Deep learning techniques for classification of handwritten digits. In *Informacione Tehnologije, Žabljak*, 2017.