

Kristian Miok

Curriculum Vitae



Education

- 2019 **Member of Laboratory for Cognitive Modeling**, *Faculty of Computer and Information Science, University of Ljubljana, Slovenia.*
- to current
- o Deep learning models for Natural Language Processing.
 - o Explanation of Black Box Decision models
 - o Probabilistic Neural Networks for Text Classification.
- 2017 **PhD in Machine Learning**, *West University of Timisoara, Romania.*
- to current
- o Statistical and Machine Learning models applied on Textual and Biomedical data.
 - o Predictive Statistical Modeling.
 - o Probabilistic Machine Learning.
- 2013–2016 **Master of Statistics**, *Hasselt University, Belgium.*
- o Bio-statistical Modeling.
 - o Data Mining Methods.
 - o Clinical Trials.
- 2012–2015 **Master of Mathematics**, *University of Belgrade, Serbia.*
- 2008–2012 **Bachelor of Mathematics**, *University of Belgrade, Serbia.*

Experience

- Nov. 2020 to current **NLP Researcher on the project**, *ROGER project, West University of Timisoara, Romania.*
- o The ROGER research project aims at developing a corpus-based methodology for the analysis of academic writing genres at Romanian universities from a contrastive perspective: genres written in Romanian versus genres written in English.
- June. 2019 to current **Machine Learning Researcher on the project**, *Cross-Lingual Embeddings for Less-Represented Languages in European News Media (EMBEDDIA) project, Faculty of Computer and Information Science, Ljubljana.*
- o the EMBEDDIA project investigate methods based on cross-lingual word embeddings, use them to develop technologies for less-resourced languages, and deploy them to produce efficient, accurate applications for the news media industry.
 - o An important part of the project is development and adaptation of word embedding models that are sensitive to informality, ambiguity and context of use.

Oct. 2018 to current **Statistician on the project**, *Bioeconomic approach to antimicrobial agents - use and resistance project*, West University of Timisoara, Romania.

- The project covers a bio-economic survey of consumption/usage of antimicrobial products.
- The scope is to investigate a resistance of microorganisms (such as coli and Staphylococcus aureus) to antimicrobial products based on dairy cows data.

Apr. 2017 to Aug. 2017 **Data Analyst**, *P3 Communications Engineering Company*, Belgrade, Serbia.

- Analyzing and visualization of telecommunication data using Tableau and R.
- Accessing and manipulation data from the cloud.
- Implementing Data Mining techniques using R to Tableau integration.

Nov. 2016 to Apr. 2017 **Volunteering as Database Administrator**, *Versko Dobrotvorno Starateljstvo*, Belgrade, Serbia.

- Building a database for the charity organization users.
- Importing, managing and reporting data in Access.

Feb. 2016 to Aug. 2016 **Internship during the 2nd year Master of Statistics – Biostatistics**, *Mars Petcare Company*, Germany.

- Clustering of different petfood products based on their aroma profile.
- Analyzing aroma compounds which are more informative regarding this objective.
- Identifying chemical compounds that have most influence on products grouping.

Professional Skills

Languages: Serbian (native), English (fluent) and Romanian (advanced).

Software: Microsoft Office Word, Excel, PowerPoint, Latex.

Programming Software: Python, R, SAS, Tableau, SAS Visual Analytics, WinBUGS, Matlab.

Certificates

Jul. 2016 **SAS Certified Base Programmer for SAS 9**, *Sas Institute*, Tervuren, Belgium.

Aug. 2016 **Introduction in SAS and trained in Visual Analytics**, *Sas Institute*, Tervuren, Belgium.

Academic Activities

Dec. 2020 **Reviewer for Journal of Ambient Intelligence and Humanized Computing**, *Springer*.

July. 2019 **Participating in "Eastern European Machine Learning Summer School 2019"**, organized by *DeepMind*, Bucharest, Romania.

Jun. 2019 **Giving a talk on "3rd Conference on Recent Advances in Artificial Intelligence RAAI 2019"**

Oct. 2018 **Participating in International Training School: "New genomic and management tools for healthier dairy cows"**, organized by *Genotype and Environment projet*, Bucharest, Romania.

Sep. 2018 **Presenting paper on PhD track**, *20th International Symposium on Symbolic and Numeric Algorithms for Scientific Computing*, West University of Timisoara.

- Jul. 2018 to Sep. 2018 **Teaching Supervisor for students on Internship, first year master students, Master of Bioinformatics, West University of Timisoara.**
- May. 2018 **Participating in International Spring School: "IoT, economic and management challenges for e-health integration in the enlarged Europe", organized by University of Trieste, Koper, Slovenia.**
- Oct. 2017 to Feb. 2018 **Teaching Fellow for Databases I laboratory classes, second year bachelor students, Bachelor of Informatics, West University of Timisoara.**

Publications

2021

- Miok, K., Škrlić, B., Zaharie, D., and Robnik-Šikonja, M. (2021). To BAN or not to BAN: Bayesian Attention Networks for Reliable Hate Speech Detection. accepted for publication at Cognitive Computation Journal.

2020

- Miok K, Pirš G, Robnik-Šikonja M (2020) Bayesian methods for semi-supervised text annotation. In: Proceedings of the 14th Linguistic Annotation Workshop, Association for Computational Linguistics, Barcelona, Spain, pp 1–12.
- Miok, K., Škrlić, B., Zaharie, D., and Robnik-Šikonja, M. (2020). Bayesian BERT for Trustful Hate Speech Detection. Presented as poster at *NeurIPS 2020*, Europe meetup on Bayesian Deep Learning and *ICML 2020*, Workshop on Uncertainty and Robustness in Deep Learning.
- Pârvulescu, L., Iorgu, E. I., Zaharia, C., Ion, M. C., Satmari, A., Krapal, A. M., Popa, O. P., Miok, K., Petrescu, I., and Popa, L. O. (2020). The future of endangered crayfish in light of protected areas and habitat fragmentation. *Scientific reports*, 10(1), 1-12.

2019

- Miok, K., Nguyen-Doan, D., Robnik-Šikonja, M., and Zaharie, D. (2019, November). Multiple Imputation for Biomedical Data using Monte Carlo Dropout Autoencoders. In 2019 E-Health and Bioengineering Conference (EHB) (pp. 1-4). IEEE.
- Miok, K., Nguyen-Doan, D., Škrlić, B., Zaharie, D., and Robnik-Šikonja, M. (2019, October). Prediction Uncertainty Estimation for Hate Speech Classification. In International Conference on Statistical Language and Speech Processing (pp. 286-298). Springer, Cham.
- Miok, K., Nguyen-Doan, D., Zaharie, D., and Robnik-Šikonja, M. (2019, September). Generating Data using Monte Carlo Dropout. In 2019 IEEE 15th International Conference on Intelligent Computer Communication and Processing (ICCP) (pp. 509-515). IEEE.

2018

- Miok, K. (2018, September). Estimation of prediction intervals in neural network-based regression models. In 2018 20th International Symposium on Symbolic and Numeric Algorithms for Scientific Computing (SYNASC) (pp. 463-468). IEEE.