Dragi Kocev

Curriculum Vitae
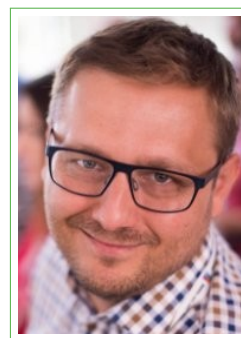
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Work experience

2018-	Co-founder, Bias Variance Labs, d.o.o., Ljubljana, Slovenia
2016-	Senior Research Fellow, Dept. of Knowledge Technologies, Jožef Stefan Institute
2014-2015	Visiting research fellow, Dept. of Informatics, Universita degli studi di Bari, Italy
2011-2014	Post-doctoral researcher, Dept. of Knowledge Technologies, Jožef Stefan Institute
2008-2011	Research assistant, Dept. of Knowledge Technologies, Jožef Stefan Institute

Education

2011   **PhD in Computer Science**, IPS Jožef Stefan, Ljubljana, Slovenia
Dissertation: *Ensembles for predicting structured outputs*

2005   **BSc in Enginnering**, Faculty of Electrical Engineering, Skopje, Macedonia
Thesis: *Inductive querying environment for learning predictive clustering trees*

Projects

Coordinator or Principal Investigator

2023-2027   **TRUSTroke**: Trustworthy AI for Stroke Pathways improvement, HORIZON-HLTH-2022-STAYHLTH-01-two-stage. 2023-2027.; *Principal Investigator*

2022-2023   **TII ADAF**: Automatic detection of archaeological features from LiDAR data using machine learning techniques, TII *Principal Investigator*

2020-2021   **AiTLAS**: AI toolbox for Earth Observation; European Space Agency ESA RFP/3-16371/19/I-NB*Principal Investigator*

2019-2021   **GalaxAI**: Machine Learning for Space Operations; European Space Agency ESA AO/1-9704/19/D/AH *Principal Investigator*

2014-2017   **MAESTRA**: Learning from Massive, Incompletely annotated, and Structured Data, FP7 FET Open Xtrack, grant no. ICT-2013-612944; *Co-coordinator*

Participant/Researcher

2020-2023   **TAILOR**: Foundations of Trustworthy AI - Integrating Reasoning, Learning and Optimization, H2020

2017-2020   **TRAIN**: Big Data and Disease Models: A Cross-border Platform for Validated Biotech Industry Kit, INTERREG V-A Italy-Slovenia

2014-2020   **HBP**: Human Brain Project; HBP SGA1; HBP SGA2; FET Flagship, grant no. 604102

2015-2019   **LandMARK**: LAND Management: Assessment, Research, Knowledge base, H2020

2008-2012 **PHAGOSYS**: Systems biology of phagosome formation and maturation - modulation by intracellular pathogens, FP7 STREP, grant no. HEALTH-F4-2008-223451

2005-2008 **IQ**: Inductive Queries for Mining Patterns and Models, FP6 STREP, grant no. IST-2004-516169

Software and resources

2020- The AiTLAS ecosystem (*Principal Investigator*):
1) A toolbox for applying AI methods for analysis of Earth observation data,
2) A catalog of Earth Observation data ready for exploitation with AI methods, and
3) Benchmark Arena - An open-source benchmark suite for evaluating state-of-the-art deep learning approaches for image classification in Earth Observation (EO)

2019-2021 GalaxAI - A toolbox for analysis of spacecraft behavior monitoring pertaining to MarsExpress and INTEGRAL spacecraft, *Principal Investigator*

2019- FAIR multi-label classification resources, datasets and experiments, *Co-Principal Investigator*

2005- CLUS+ - a toolbox for structured output prediction based on predictive clustering, *Core contributor*

Awards and competitions

Awards

2021 Slovenian Research Agency Scientific Excellence award for the work *COVID-19 pandemic changes the food consumption patterns*

2019 Exceptional and outstanding paper award, MIPRO: 42nd International Convention on Information and Communication Technology, Electronics and Microelectronics for the paper *Feature Extraction for Heartbeat Classification in Single-lead ECG*, co-authored with J. Bogatinovski and A. Rashkovska

2015 Best paper award at the 16th International Conference on Intelligent Data Engineering and Automated Learning (IDEAL-2015) for the paper *Web genre classification via hierarchical multi-label classification*, co-authored with G. Madjarov, V. Vidulin and I. Dimitrovski

Competitions

2016 ESA Mex Challenge: European Space Agency – Mars Express Power Challenge - ranked 1st (team MMME8)

2013 ImageCLEF: Automatic modality classification of medical images - ranked 2nd

2013 ImageCLEF: Ad-hoc medical image retrieval - ranked 3rd

2010 ImageCLEF@ICPR 2010: Automatic image annotaion - ranked 2nd and 3rd according to the two evaluation measures

2009 ImageCLEF 2009:Automatic annotaion of medical images - ranked 3rd

Invited lectures

2021 Machine learning for space research, *SLAIS 2021 Assembly*, March 29, 2021

2020 Semantic annotation of recipes to investigate COVID-19 impact on food consumption process, *IEEE Bigdata 2020, Virtual Workshop on Big Food and Nutrition Data Management and Analysis*, Dec. 10-13, 2020

2020	Machine learning for space research: Modelling the thermal power consumption of the Mars Express spacecraft, *University of Auckland*, New Zealand, July 15, 2020
2019	Semi-supervised multi-target prediction for analysis of screening data, *ICGEB-TRAIN Workshop on "High Content Imaging and Data Science for Virtual Screening and Drug Discovery*, Bled, Slovenia, May 13-17, 2019
2017	Machine learning for complex and heterogeneous neurological data, *1st HBP Student Conference: Transdisciplinary Research Linking Neuroscience, Brain Medicine and Computer Science*, Vienna, Austria, February 8-10, 2017
2016	Semi-supervised tree learning, *Summer School on Mining Big and Complex Data*, Ohrid, Macedonia, September 4-8, 2016
2014	Tree ensembles for predicting structured outputs, *Dipartimento di Informatica, Università degli Studi di Bari Aldo Moro*, Bari, Italy, November 14, 2014
2014	Tree ensembles for predicting structured outputs, *11th International Conference on Informatics and Information Technologies*, Bitola, Macedonia, April 11-13, 2014

Service to the community

Editorial Roles

2020-	Expert Systems with Applications, *Editor*
2020-	Machine Learning, *Action Editor*
2016-	Data Mining and Knowledge Discovery, *Action Editor*
2016-	Ecological Informatics, *Editorial Board Member*
2016-2017	Machine Learning Journal: Special issue for ECML PKDD 2017, *Guest editor*
2016-2017	Data Mining and Knowledge Discovery Journal: Special issue for ECML PKDD 2017, *Guest editor*
2014-2015	Machine Learning Journal: Special issue on Discovery Science, *Guest editor*

Journal track co-chair

2017	ECML PKDD 2017: European Conference on Machine Learning/Principles and Practice of Knowledge Discovery in Databases, Skopje, Macedonia, Sept. 18-22, 2017

Program committee co-chair

2021	Space and AI: *Space and Artificial Intelligence*, online conference, September 13th, 2021, Organized by CLAIRE and ESA, in association with ECML PKDD 2021
2021	AI4Spacecraft Longevity: 1st International workshop *'D*** it... I'm an engineer, not a doctor!' : AI for Spacecraft Longevity*, an IJCAI 2021 event
2021	Spacecraft Health: *Machine Learning for Spacecraft Health* Mini-Workshop held at the 8th IEEE International Conference on Space Mission Challenges for Information Technology (SMC-IT 2021), Online - July 26-30, 2021
2014	DS2014: *17th International Conference on Discovery Science*, Bled, Slovenia, October 8-10, 2014

Program committee member

AAAI 2018 - ; IJCAI 2015 - ; KDD ADS 2018; ECML PKDD 2015 - ; Discovery Science 2014 - ; NFMCP 2014 - ; etc

Area Chair: ECML PKDD 2020, IJCAI 2021

Senior PC member: IJCAI 2015, IJCAI 2020

Organizing committee

2019 ICGEB-TRAIN 2019: Workshop on High Content Imaging and Data Science for Virtual Screening and Drug Discovery, Bled, Slovenia, 13-17 May 2019

2017 ECML PKDD 2017: European Conference on Machine Learning/Principles and Practice of Knowledge Discovery in Databases, Skopje, Macedonia, Sept. 18-22, 2017

2016 MAESTRA SUMMER SCHOOL 2016: Summer School on Mining Big and Complex Data, Ohrid, Macedonia, 4-8 September 2016

2014 DS2014: 17th Int. Conference on Discovery Science, Bled, Slovenia, October 8-10, 2014

2010 MLSB10: Fourth International Workshop on Machine Learning in Systems Biology, Edinburgh, Scotland, October 15-16, 2010

2009 MLSB09: Third International Workshop on Machine Learning in Systems Biology, Ljubljana, Slovenia, September 5-6, 2009

Membership in professional organisations

2020- Young Academy of Europe, *Member*

2014- Steering committee of the Discovery Science conference

2006- Slovenian society for artificial intelligence (SLAIS), since 2018 member of the executive Board

Publications

For an exhaustive list of publications, please visit my Google Scholar or COBISS profile.