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2022

1. K. Kutt, D. Drążyk, L. Żuchowska, M. Szelążek, S. Bobek, and G. J. Nalepa, "**BIRAFFE2, a multimodal dataset for emotion-based personalization in rich affective game environments**," *Sci. Data*, vol. 9, no. 1, p. 274, 2022, doi: 10.1038/s41597-022-01402-6.
2. J. Jakubowski, P. Stanisz, S. Bobek, and G. J. Nalepa, "**Anomaly Detection in Asset Degradation Process Using Variational Autoencoder and Explanations**," *Sensors*, vol. 22, no. 1, p. 291, 2022, doi: 10.3390/s22010291.
3. K. Kutt, P. Sobczyk, and G. J. Nalepa, "**Evaluation of Selected APIs for Emotion Recognition from Facial Expressions**," in *Bio-inspired Systems and Applications: from Robotics to Ambient Intelligence - 9th International Work-Conference on the Interplay Between Natural and Artificial Computation, IWINAC 2022, Puerto de la Cruz, Tenerife, Spain, May 31 - June 3, 2022, Proceedings, Part II*, 2022, vol. 13259, pp. 65–74, doi: 10.1007/978-3-031-06527-9_7.
4. J. Jakubowski, P. Stanisz, S. Bobek, and G. J. Nalepa, "**Performance of Explainable {AI} Methods in Asset Failure Prediction**," in *Computational Science - ICCS 2022 - 22nd International Conference, London, UK, June 21-23, 2022, Proceedings, Part IV*, 2022, vol. 13353, pp. 472–485, doi: 10.1007/978-3-031-08760-8_40.
5. M. Kuk, S. Bobek, and G. J. Nalepa, "**Comparing Explanations from Glass-Box and Black-Box Machine-Learning Models**," in *Computational Science - ICCS 2022 - 22nd International Conference, London, UK, June 21-23, 2022, Proceedings, Part III*, 2022, vol. 13352, pp. 668–675, doi: 10.1007/978-3-031-08757-8_55.

2021

1. V. Rodriguez-Fernández, A. Trzcionkowska, A. González-Pardo, E. Brzychczy, G. J. Nalepa, and D.

Camacho, “**Conformance Checking for Time-Series-Aware Processes**,” *IEEE Trans. Ind. Informatics*, vol. 17, no. 2, pp. 871–881, 2021, doi: 10.1109/TII.2020.2977126.
2. M. Kuk, S. Bobek, and G. J. Nalepa, “**Explainable clustering with multidimensional bounding boxes**,” in *8th IEEE International Conference on Data Science and Advanced Analytics, DSAA 2021, Porto, Portugal, October 6-9, 2021*, 2021, pp. 1–10, doi: 10.1109/DSAA53316.2021.9564220.
3. L. Żuchowska, K. Kutt, and G. J. Nalepa, “**Bartle Taxonomy-based Game for Affective and Personality Computing Research**,” in *Proceedings of the Twelfth International Workshop Modelling and Reasoning in Context (MRC 2021) co-located with the 30th International Joint Conference on Artificial Intelligence (IJCAI 2021), Montréal, Quebec, Canada, August 19-20, 2021*, 2021, vol. 2995, pp. 51–55, [Online]. Available: http://ceur-ws.org/Vol-2995/paper7.pdf.
4. G. J. Nalepa, S. Bobek, K. Kutt, and M. Atzmueller, “**Semantic Data Mining in Ubiquitous Sensing: A Survey**,” *Sensors*, vol. 21, no. 13, p. 4322, 2021, doi: 10.3390/s21134322.
5. J. Jakubowski, P. Stanisz, S. Bobek, and G. J. Nalepa, “**Explainable anomaly detection for Hot-rolling industrial process**,” in *8th IEEE International Conference on Data Science and Advanced Analytics, DSAA 2021, Porto, Portugal, October 6-9, 2021*, 2021, pp. 1–10, doi: 10.1109/DSAA53316.2021.9564228.
6. S. Bobek and G. J. Nalepa, “**Introducing Uncertainty into Explainable AI Methods**,” in *Computational Science - ICCS 2021 - 21st International Conference, Krakow, Poland, June 16-18, 2021, Proceedings, Part VI*, 2021, vol. 12747, pp. 444–457, doi: 10.1007/978-3-030-77980-1_34.
7. S. Bobek, P. Bałaga, and G. J. Nalepa, “**Towards Model-Agnostic Ensemble Explanations**,” in *Computational Science - ICCS 2021 - 21st International Conference, Krakow, Poland, June 16-18, 2021, Proceedings, Part IV*, 2021, vol. 12745, pp. 39–51, doi: 10.1007/978-3-030-77970-2_4.
8. K. Kutt, L. Żuchowska, S. Bobek, and G. J. Nalepa, “**People in the Context - an Analysis of Game-based Experimental Protocol**,” in *Proceedings of the Twelfth International Workshop Modelling and Reasoning in Context (MRC 2021) co-located with the 30th International Joint Conference on Artificial Intelligence (IJCAI 2021), Montréal, Quebec, Canada, August 19-20, 2021*, 2021, vol. 2995, pp. 46–50, [Online]. Available: paper6.pdf.
9. S. Bobek, M. Mozolewski, and G. J. Nalepa, “**Explanation-Driven Model Stacking**,” in *Computational Science - ICCS 2021 - 21st International Conference, Krakow, Poland, June 16-18, 2021, Proceedings, Part VI*, 2021, vol. 12747, pp. 361–371, doi: 10.1007/978-3-030-77980-1_28.
10. K. Kutt, S. Skoczeń, and G. J. Nalepa, “**A Voice-Based Travel Recommendation System Using Linked Open Data**,” in *Computational Science - ICCS 2021 - 21st International Conference, Krakow, Poland, June 16-18, 2021, Proceedings, Part III*, 2021, vol. 12744, pp. 370–377, doi: 10.1007/978-3-030-77967-2_31.
11. K. Kutt, P. Nowara, R. Szczur, G. Barnowska, and G. J. Nalepa, “**Smart Data for Goods and Vehicle Monitoring - Practical Considerations on Data Semantization**,” in *33rd IEEE International Conference on Tools with Artificial Intelligence, ICTAI 2021, Washington, DC, USA, November 1-3, 2021*, 2021, pp. 1216–1220, doi: 10.1109/ICTAI52525.2021.00192.
12. S. Bobek, M. Kuk, J. Brzegowski, E. Brzychczy, and G. J. Nalepa, “**KnAC: an approach for enhancing cluster analysis with background knowledge and explanations**,” *CoRR* abs/2112.08759, 2021, [Online]. Available: https://arxiv.org/abs/2112.08759.
13. S. K. Tadeja, K. Kutt, Y. Lu, P. Seshadri, G. J. Nalepa, and P. O. Kristensson, “**Jarvis for Aeroengine Analytics: A Speech Enhanced Virtual Reality Demonstrator Based on Mining Knowledge Databases**,” *CoRR* abs/2107.13403, 2021, [Online]. Available: https://arxiv.org/abs/2107.13403.
14. K. Kutt, D. Drążyk, S. Bobek, and G. J. Nalepa, “**Personality-Based Affective Adaptation Methods for Intelligent Systems**,” *Sensors*, vol. 21, no. 1, p. 163, 2021, doi: 10.3390/s21010163.
15. S. Bobek and G. J. Nalepa, “**Augmenting Automatic Clustering with Expert Knowledge**

and Explanations," in *Computational Science - ICCS 2021 - 21st International Conference, Krakow, Poland, June 16-18, 2021, Proceedings, Part IV*, 2021, vol. 12745, pp. 631–638, doi: 10.1007/978-3-030-77970-2_48.

2020

1. S. Bobek, M. M. Tragarz, M. Szelążek, and G. J. Nalepa, "**Explaining Machine Learning Models of Emotion Using the BIRAFFE Dataset**," in *Artificial Intelligence and Soft Computing - 19th International Conference, ICAISC 2020, Zakopane, Poland, October 12-14, 2020, Proceedings, Part II*, L. Rutkowski, R. Scherer, M. Korytkowski, W. Pedrycz, R. Tadeusiewicz, and J. M. Żurada, Eds. Springer, 2020, pp. 290–300, doi: 10.1007/978-3-030-61534-5_26.
2. G. J. Nalepa, J. M. Ferrández, J. T. Palma-Méndez, and V. Julián, Eds., "**Proceedings of the 3rd Workshop on Affective Computing and Context Awareness in Ambient Intelligence (AfCAI 2019), Universidad Politécnica de Cartagena, Spain, November 11-12, 2019,**" 2020, vol. 2609, [Online]. Available: http://ceur-ws.org/Vol-2609.
3. G. J. Nalepa, M. Atzmueller, M. Araszkiewicz, and P. Novais, Eds., "**Proceedings of the 2nd EXplainable AI in Law Workshop (XAILA 2019) co-located with 32nd International Conference on Legal Knowledge and Information Systems (JURIX 2019), Madrid, Spain, December 11, 2019,**" 2020, vol. 2681, [Online]. Available: http://ceur-ws.org/Vol-2681.
4. L. Żuchowska, K. Kutt, K. Geleta, S. Bobek, and G. J. Nalepa, "**Affective Games Provide Controlable Context. Proposal of an Experimental Framework**," in *Proceedings of the Eleventh International Workshop Modelling and Reasoning in Context co-located with the 24th European Conference on Artificial Intelligence, MRC@ECAI 2020, Santiago de Compostela, Galicia, Spain, August 29, 2020*, 2020, vol. 2787, pp. 45–50, [Online]. Available: paper7.pdf.
5. M. Szelążek, S. Bobek, A. González-Pardo, and G. J. Nalepa, "**Towards the Modeling of the Hot Rolling Industrial Process. Preliminary Results**," in *Intelligent Data Engineering and Automated Learning - IDEAL 2020 - 21st International Conference, Guimaraes, Portugal, November 4-6, 2020, Proceedings, Part I*, 2020, vol. 12489, pp. 385–396, doi: 10.1007/978-3-030-62362-3_34.
6. K. Kutt, D. Drążyk, M. Szelążek, S. Bobek, and G. J. Nalepa, "**The BIRAFFE2 Experiment. Study in Bio-Reactions and Faces for Emotion-based Personalization for AI Systems**," *CoRR* abs/2007.15048, 2020, [Online]. Available: https://arxiv.org/abs/2007.15048.
7. S. Bobek, A. Trzcionkowska, E. Brzychczy, and G. J. Nalepa, "**Cluster Discovery from Sensor Data Incorporating Expert Knowledge**," in *Proceedings of the International Workshop on Knowledge Representation and Representation Learning co-located with the 24th European Conference on Artificial Intelligence (ECAI 2020), Virtual Event, September, 2020*, 2020, vol. 3020, pp. 10–21, [Online]. Available: KR4L_paper_5.pdf.

2019

1. B. Giżycka, K. Kutt, and G. J. Nalepa, "**Knowledge-based Development of Games Using Design Patterns Ontology**," in *Proceedings of the Posters and Demo Track of the 15th International Conference on Semantic Systems co-located with 15th International Conference on Semantic Systems (SEMANTiCS 2019), Karlsruhe, Germany, September 9th - to - 12th, 2019*, 2019, vol. 2451, [Online]. Available: paper-12.pdf.
2. M. Z. Łępicki and S. Bobek, "**Affective Context-Aware Systems: Architecture of a Dynamic Framework**," in *Artificial Intelligence and Soft Computing - 18th International Conference, ICAISC 2019, Zakopane, Poland, June 16-20, 2019, Proceedings, Part II*, 2019, vol.

11509, pp. 575–584, doi: 10.1007/978-3-030-20915-5_51.
3. G. J. Nalepa, J. T. Palma-Méndez, and M. T. H. Ezquerro, “**Affective computing in ambient intelligence systems**,” *Futur. Gener. Comput. Syst.*, vol. 92, pp. 454–457, 2019, doi: 10.1016/j.future.2018.11.016.
4. K. Kluza and G. J. Nalepa, “**Formal Model of Business Processes Integrated with Business Rules**,” *Inf. Syst. Front.*, vol. 21, no. 5, pp. 1167–1185, 2019, doi: 10.1007/s10796-018-9826-y.
5. J. K. Argasiński, G. J. Nalepa, P. Strojny, and P. Węgrzyn, “**Applying Affective Design Patterns in VR Firefighter Training Simulator**,” in *Proceedings of the 3rd Workshop on Affective Computing and Context Awareness in Ambient Intelligence (AfCAI 2019), Universidad Politécnica de Cartagena, Spain, November 11-12, 2019*, 2019, vol. 2609, [Online]. Available: AfCAI2019_paper_7.pdf.
6. M. Ślażyński, S. Abreu, and G. J. Nalepa, “**Towards a formal specification of local search neighborhoods from a constraint satisfaction problem structure**,” in *Proceedings of the Genetic and Evolutionary Computation Conference Companion, GECCO 2019, Prague, Czech Republic, July 13-17, 2019*, 2019, pp. 137–138, doi: 10.1145/3319619.3321968.
7. P. Jemioło, B. Giżycka, and G. J. Nalepa, “**Prototypes of Arcade Games Enabling Affective Interaction**,” in *Artificial Intelligence and Soft Computing - 18th International Conference, ICAISC 2019, Zakopane, Poland, June 16-20, 2019, Proceedings, Part II*, 2019, vol. 11509, pp. 553–563, doi: 10.1007/978-3-030-20915-5_49.
8. M. Ślażyński, S. Abreu, and G. J. Nalepa, “**Generating Local Search Neighborhood with Synthesized Logic Programs**,” in *Proceedings 35th International Conference on Logic Programming (Technical Communications), ICLP 2019 Technical Communications, Las Cruces, NM, USA, September 20-25, 2019*, 2019, vol. 306, pp. 168–181, doi: 10.4204/EPTCS.306.22.
9. M. Marcos et al., Eds., “**Artificial Intelligence in Medicine: Knowledge Representation and Transparent and Explainable Systems - AIME 2019 International Workshops, KR4HC/ProHealth and TEAAM, Poznan, Poland, June 26-29, 2019, Revised Selected Papers,**” 2019, vol. 11979, doi: 10.1007/978-3-030-37446-4.
10. G. J. Nalepa, M. Atzmueller, M. Araszkiewicz, and P. Novais, Eds., “**Proceedings of the EXplainable AI in Law Workshop co-located with the 31st International Conference on Legal Knowledge and Information Systems, XAILA@JURIX 2018, Groningen, The Netherlands, December 12, 2018**,” 2019, vol. 2381, [Online]. Available: http://ceur-ws.org/Vol-2381.
11. G. J. Nalepa, M. Araszkiewicz, S. Nowaczyk, and S. Bobek, “**Building Trust to AI Systems Through Explainability. Technical and legal perspectives**,” in *Proceedings of the 2nd EXplainable AI in Law Workshop (XAILA 2019) co-located with 32nd International Conference on Legal Knowledge and Information Systems (JURIX 2019), Madrid, Spain, December 11, 2019*, 2019, vol. 2681, [Online]. Available: xaila2019-paper2.pdf.
12. K. Kutt et al., “**BIRAFFE: Bio-Reactions and Faces for Emotion-based Personalization**,” in *Proceedings of the 3rd Workshop on Affective Computing and Context Awareness in Ambient Intelligence (AfCAI 2019), Universidad Politécnica de Cartagena, Spain, November 11-12, 2019*, 2019, vol. 2609, [Online]. Available: AfCAI2019_paper_6.pdf.
13. S. Bobek, G. J. Nalepa, and M. Ślażyński, “**HEARTDROID - Rule engine for mobile and context-aware expert systems**,” **Expert Syst. J. Knowl. Eng.**, vol. 36, no. 1, 2019, doi: 10.1111/exsy.12328.
14. G. J. Nalepa, K. Kutt, and S. Bobek, “**Mobile platform for affective context-aware systems**,” *Futur. Gener. Comput. Syst.*, vol. 92, pp. 490–503, 2019, doi: 10.1016/j.future.2018.02.033.
15. G. J. Nalepa, K. Kutt, B. Giżycka, P. Jemioło, and S. Bobek, “**Analysis and Use of the Emotional Context with Wearable Devices for Games and Intelligent Assistants**,” *Sensors*, vol. 19, no. 11, p. 2509, 2019, doi: 10.3390/s19112509.

2018

1. K. Kutt, G. J. Nalepa, B. Giżycka, P. Jemioło, and M. Adamczyk, “**BandReader - A Mobile Application for Data Acquisition from Wearable Devices in Affective Computing Experiments**,” in *11th International Conference on Human System Interaction, HSI 2018, Gdansk, Poland, July 4-6, 2018*, 2018, pp. 42–48, doi: 10.1109/HSI.2018.8431271.
2. S. Bobek and P. Misiak, “**Uncertain Decision Tree Classifier for Mobile Context-Aware Computing**,” in *Artificial Intelligence and Soft Computing - 17th International Conference, ICAISC 2018, Zakopane, Poland, June 3-7, 2018, Proceedings, Part II*, 2018, vol. 10842, pp. 276–287, doi: 10.1007/978-3-319-91262-2_25.
3. S. Bobek and K. Jurek, “**Causal Rules Detection in Streams of Unlabeled, Mixed Type Values with Finit Domains**,” in *Intelligent Data Engineering and Automated Learning - IDEAL 2018 - 19th International Conference, Madrid, Spain, November 21-23, 2018, Proceedings, Part II*, 2018, vol. 11315, pp. 64–74, doi: 10.1007/978-3-030-03496-2_8.
4. G. J. Nalepa, **Modeling with Rules Using Semantic Knowledge Engineering**, vol. 130. Springer, 2018.
5. Â. Costa, P. Novais, V. Julián, and G. J. Nalepa, “**Cognitive assistants**,” *Int. J. Hum. Comput. Stud.*, vol. 117, pp. 1–3, 2018, doi: 10.1016/j.ijhcs.2018.05.008.
6. G. J. Nalepa, “**Techniques for Construction and Integration of Rule Bases**,” in *Advances in Data Analysis with Computational Intelligence Methods - Dedicated to Professor Jacek Żurada*, 2018, vol. 738, pp. 203–223, doi: 10.1007/978-3-319-67946-4_8.
7. B. Giżycka and G. J. Nalepa, “**Emotion in Models Meets Emotion in Design: Building True Affective Games**,” in *IEEE Games, Entertainment, Media Conference, GEM 2018, Galway, Ireland, August 15-17, 2018*, 2018, pp. 1–5, doi: 10.1109/GEM.2018.8516439.
8. M. Araszkiewicz and G. J. Nalepa, “**Explainability of Formal Models of Argumentation Applied to Legal Domain**,” in *Proceedings of the EXplainable AI in Law Workshop co-located with the 31st International Conference on Legal Knowledge and Information Systems, XAILA@JURIX 2018, Groningen, The Netherlands, December 12, 2018*, 2018, vol. 2381, pp. 21–25, [Online]. Available: xaila2018_paper_9.pdf.
9. G. J. Nalepa, V. Julián, J. T. P. Méndez, Â. Costa, C. Carrascosa, and P. Novais, Eds., “**Proceedings of the Workshop on Affective Computing and Context Awareness in Ambient Intelligence (AfCAI 2018), Valencia, Spain, April 19-20, 2018**,” 2018, vol. 2166, [Online]. Available: http://ceur-ws.org/Vol-2166.
10. G. J. Nalepa and J. Baumeister, Eds., **Synergies Between Knowledge Engineering and Software Engineering**, vol. 626. Springer, 2018.
11. B. Giżycka, G. J. Nalepa, and P. Jemioło, “‘**AIded with emotions’ - a new design approach towards affective computer systems**,” *CoRR* abs/1806.04236, 2018, [Online]. Available: http://arxiv.org/abs/1806.04236.
12. G. J. Nalepa, E. Brzychczy, and S. Bobek, “**On the Opportunities for Using Mobile Devices for Activity Monitoring and Understanding in Mining Applications**,” in *Intelligent Data Engineering and Automated Learning - IDEAL 2018 - 19th International Conference, Madrid, Spain, November 21-23, 2018, Proceedings, Part II*, 2018, vol. 11315, pp. 75–83, doi: 10.1007/978-3-030-03496-2_9.
13. G. J. Nalepa, K. Kutt, S. Bobek, and B. Giżycka, “**Development of Mobile Platform for Affect Interpretation. Current Progress**,” in *Proceedings of the Workshop on Affective Computing and Context Awareness in Ambient Intelligence (AfCAI 2018), Valencia, Spain, April 19-20, 2018*, 2018, vol. 2166, [Online]. Available: afcai18-paper12.pdf.
14. K. Kutt, W. Binek, P. Misiak, G. J. Nalepa, and S. Bobek, “**Towards the Development of Sensor Platform for Processing Physiological Data from Wearable Sensors**,” in *Artificial Intelligence and Soft Computing - 17th International Conference, ICAISC 2018, Zakopane,*

Poland, June 3-7, 2018, Proceedings, Part II, 2018, vol. 10842, pp. 168–178, doi: 10.1007/978-3-319-91262-2_16.

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