

# Peter A Flach

## List of Publications by Year in descending order

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Version: 2024-02-01

121  
papers

4,416  
citations

147726

31  
h-index

168321

53  
g-index

128  
all docs

128  
docs citations

128  
times ranked

3914  
citing authors

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 1  | An active semi-supervised deep learning model for human activity recognition. Journal of Ambient Intelligence and Humanized Computing, 2023, 14, 13049-13065.   | 3.3 | 7         |
| 2  | Continuous Adaptation with Online Meta-Learning for Non-Stationary Target Regression Tasks. Signals, 2022, 3, 66-85.  | 1.2 | 0         |
| 3  | CRISP-DM Twenty Years Later: From Data Mining Processes to Data Science Trajectories. IEEE Transactions on Knowledge and Data Engineering, 2021, 33, 3048-3061.   | 4.0 | 120       |
| 4  | Human Activity Recognition Based on Dynamic Active Learning. IEEE Journal of Biomedical and Health Informatics, 2021, 25, 922-934.  | 3.9 | 38        |
| 5  | Multi-label thresholding for cost-sensitive classification. Neurocomputing, 2021, 436, 232-247.   | 3.5 | 9         |
| 6  | Reflections on reciprocity in research. Machine Learning, 2020, 109, 1281-1285.   | 3.4 | 0         |
| 7  | GLU: a software package for analysing continuously measured glucose levels in epidemiology. International Journal of Epidemiology, 2020, 49, 744-757.   | 0.9 | 14        |
| 8  | Modelling Patient Behaviour Using IoT Sensor Data: a Case Study to Evaluate Techniques for Modelling Domestic Behaviour in Recovery from Total Hip Replacement Surgery. Journal of Healthcare Informatics Research, 2020, 4, 238-260. | 5.3 | 11        |
| 9  | One Explanation Does Not Fit All. KI - Kunstliche Intelligenz, 2020, 34, 235-250.   | 2.2 | 58        |
| 10 | Pulsar Image Classification via Robust Low-Rank Feature Extraction and Markov Random Field. , 2020, , .   |     | 2         |
| 11 | Explainability fact sheets. , 2020, , .   |     | 115       |
| 12 | FAT Forensics: A Python Toolbox for Implementing and Deploying Fairness, Accountability and Transparency Algorithms in Predictive Systems. Journal of Open Source Software, 2020, 5, 1904.  | 2.0 | 23        |
| 13 | Uni- and multivariate probability density models for numeric subgroup discovery. Intelligent Data Analysis, 2020, 24, 1403-1439.  | 0.4 | 2         |
| 14 | Performance Evaluation in Machine Learning: The Good, the Bad, the Ugly, and the Way Forward. Proceedings of the AAAI Conference on Artificial Intelligence, 2019, 33, 9808-9814.   | 3.6 | 64        |
| 15 | A Big Data platform for smart meter data analytics. Computers in Industry, 2019, 105, 250-259.  | 5.7 | 64        |
| 16 | Setting decision thresholds when operating conditions are uncertain. Data Mining and Knowledge Discovery, 2019, 33, 805-847.  | 2.4 | 4         |
| 17 | An application of hierarchical Gaussian processes to the detection of anomalies in star light curves. Neurocomputing, 2019, 342, 152-163.   | 3.5 | 8         |
| 18 | Introduction to the special issue on Data Science in Europe. International Journal of Data Science and Analytics, 2018, 6, 163-165.   | 2.4 | 0         |

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|----|---|-----|-----------|
| 19 | Activities of Daily Living Ontology for Ubiquitous Systems: Development and Evaluation. <i>Sensors</i> , 2018, 18, 2361.  | 2.1 | 12        |
| 20 | A Comprehensive Study of Activity Recognition Using Accelerometers. <i>Informatics</i> , 2018, 5, 27.   | 2.4 | 98        |
| 21 | Releasing eHealth Analytics into the Wild. , 2018, , .  |     | 10        |
| 22 | Conversational Explanations of Machine Learning Predictions Through Class-contrastive Counterfactual Statements. , 2018, , .  |     | 16        |
| 23 | Class-Box: Explaining AI Decisions With Counterfactual Statements Through Conversation With a Voice-enabled Virtual Assistant. , 2018, , .  |     | 37        |
| 24 | Smart homes, private homes? An empirical study of technology researchersâ€™ perceptions of ethical issues in developing smart-home health technologies. <i>BMC Medical Ethics</i> , 2017, 18, 23. | 1.0 | 59        |
| 25 | SPHERE: A Sensor Platform for Healthcare in a Residential Environment. , 2017, , 315-333.   |     | 47        |
| 26 | Unsupervised learning of sensor topologies for improving activity recognition in smart environments. <i>Neurocomputing</i> , 2017, 234, 93-106.   | 3.5 | 30        |
| 27 | Physical activity phenotyping with activity bigrams, and their association with BMI. <i>International Journal of Epidemiology</i> , 2017, 46, 1857-1870.  | 0.9 | 7         |
| 28 | Classifier Calibration. , 2017, , 210-217.  |     | 9         |
| 29 | Computational support for academic peer review. <i>Communications of the ACM</i> , 2017, 60, 70-79.   | 3.3 | 103       |
| 30 | ROC Analysis. , 2017, , 1109-1116.  |     | 1         |
| 31 | BDL.NET: Bayesian dictionary learning in Infer.NET. , 2016, , .   |     | 2         |
| 32 | Background Check: A General Technique to Build More Reliable and Versatile Classifiers. , 2016, , .   |     | 7         |
| 33 | Reframing in context: A systematic approach for model reuse in machine learning. <i>AI Communications</i> , 2016, 29, 551-566.  | 0.8 | 7         |
| 34 | Subgroup Discovery with Proper Scoring Rules. <i>Lecture Notes in Computer Science</i> , 2016, , 492-510.   | 1.0 | 4         |
| 35 | On the need for structure modelling in sequence prediction. <i>Machine Learning</i> , 2016, 104, 291-314.   | 3.4 | 3         |
| 36 | Cost-sensitive boosting algorithms: Do we really need them?. <i>Machine Learning</i> , 2016, 104, 359-384.  | 3.4 | 49        |

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|----|---|-----|-----------|
| 37 | Fast Unsupervised Online Drift Detection Using Incremental Kolmogorov-Smirnov Test. , 2016, , .   |     | 81        |
| 38 | Machine learning to assist risk-of-bias assessments in systematic reviews. International Journal of Epidemiology, 2016, 45, 266-277.  | 0.9 | 44        |
| 39 | Feature Construction and Calibration for Clustering Daily Load Curves from Smart-Meter Data. IEEE Transactions on Industrial Informatics, 2016, 12, 645-654.  | 7.2 | 104       |
| 40 | Classifier Calibration. , 2016, , 1-8.  |     | 5         |
| 41 | Hybrid Multi-Label Decision Trees for Classification. , 2016, , .   |     | 0         |
| 42 | First-Order Logic. , 2016, , 1-6.   |     | 0         |
| 43 | ROC Analysis. , 2016, , 1-8.  |     | 21        |
| 44 | MR-PheWAS: hypothesis prioritization among potential causal effects of body mass index on many outcomes, using Mendelian randomization. Scientific Reports, 2015, 5, 16645.   | 1.6 | 81        |
| 45 | Reframing in Frequent Pattern Mining. , 2015, , .   |     | 3         |
| 46 | Activity recognition using conditional random field. , 2015, , .  |     | 6         |
| 47 | Bridging e-Health and the Internet of Things: The SPHERE Project. IEEE Intelligent Systems, 2015, 30, 39-46.  | 4.0 | 201       |
| 48 | Bayesian Modelling of the Temporal Aspects of Smart Home Activity with Circular Statistics. Lecture Notes in Computer Science, 2015, , 279-294.   | 1.0 | 6         |
| 49 | Versatile Decision Trees for Learning Over Multiple Contexts. Lecture Notes in Computer Science, 2015, , 184-199.   | 1.0 | 5         |
| 50 | Novel Decompositions of Proper Scoring Rules for Classification: Score Adjustment as Precursor to Calibration. Lecture Notes in Computer Science, 2015, , 68-85.  | 1.0 | 19        |
| 51 | Report of the First International Workshop on Learning over Multiple Contexts (LMCE 2014). SIGKDD Explorations: Newsletter of the Special Interest Group (SIG) on Knowledge Discovery & Data Mining, 2015, 17, 48-50. | 3.2 | 0         |
| 52 | LaCova: A Tree-Based Multi-label Classifier Using Label Covariance as Splitting Criterion. , 2014, , .  |     | 5         |
| 53 | Reliability Maps: A Tool to Enhance Probability Estimates and Improve Classification Accuracy. Lecture Notes in Computer Science, 2014, , 18-33.  | 1.0 | 9         |
| 54 | Subgroup Discovery in Smart Electricity Meter Data. IEEE Transactions on Industrial Informatics, 2014, 10, 1327-1336.   | 7.2 | 38        |

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|----|---|-----|-----------|
| 55 | Rate-Constrained Ranking and the Rate-Weighted AUC. Lecture Notes in Computer Science, 2014, , 386-403.   | 1.0 | 2         |
| 56 | Rate-Oriented Point-Wise Confidence Bounds for ROC Curves. Lecture Notes in Computer Science, 2014, , 404-421.  | 1.0 | 2         |
| 57 | ROC curves in cost space. Machine Learning, 2013, 93, 71-91.  | 3.4 | 29        |
| 58 | Guest editorsâ€™ introduction: special issue of selected papers from ECML-PKDD 2012. Machine Learning, 2013, 92, 1-3.   | 3.4 | 0         |
| 59 | Guest editorsâ€™ introduction: special section of selected papers from ECML-PKDD 2012. Data Mining and Knowledge Discovery, 2013, 27, 442-443.                                      | 2.4 | 0         |
| 60 | SubSift web services and workflows for profiling and comparing scientists and their published works. Future Generation Computer Systems, 2013, 29, 569-581.                         | 4.9 | 4         |
| 61 | A Higher-order data flow model for heterogeneous Big Data. , 2013, , .  |     | 3         |
| 62 | A new strategy for applying grammatical inference to image classification problems. , 2013, , .   |     | 3         |
| 63 | Caveats and pitfalls of ROC analysis in clinical microarray research (and how to avoid them). Briefings in Bioinformatics, 2012, 13, 83-97.   | 3.2 | 96        |
| 64 | ILP turns 20. Machine Learning, 2012, 86, 3-23.   | 3.4 | 91        |
| 65 | ROC Analysis. , 2011, , 869-875.  |     | 14        |
| 66 | The Machine Learning journal: 25 years young. Machine Learning, 2011, 82, 273-274.  | 3.4 | 0         |
| 67 | Learning Multi-class Theories in ILP. Lecture Notes in Computer Science, 2011, , 6-13.  | 1.0 | 3         |
| 68 | Smooth Receiver Operating Characteristics (smROC) Curves. Lecture Notes in Computer Science, 2011, , 193-208.   | 1.0 | 2         |
| 69 | The Machine Learning journal: 250 issues and counting. Machine Learning, 2010, 81, 227-228.   | 3.4 | 0         |
| 70 | SubSift Web Services and Workflows for Profiling and Comparing Scientists and Their Published Works. , 2010, , .  |     | 0         |
| 71 | Unsupervised Word Decomposition with the Promodes Algorithm. Lecture Notes in Computer Science, 2010, , 625-632.  | 1.0 | 1         |
| 72 | Novel tools to streamline the conference review process. SIGKDD Explorations: Newsletter of the Special Interest Group (SIG) on Knowledge Discovery & Data Mining, 2010, 11, 63-67. | 3.2 | 32        |

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|----|---|-----|-----------|
| 73 | Unsupervised Morpheme Discovery with Ungrade. Lecture Notes in Computer Science, 2010, , 633-640.   | 1.0 | 0         |
| 74 | Towards Learning Morphology for Under-Resourced Fusional and Agglutinating Languages. IEEE Transactions on Audio Speech and Language Processing, 2009, 17, 956-965.   | 3.8 | 3         |
| 75 | Abduction and Induction in Artificial Intelligence. Journal of Applied Logic, 2009, 7, 251.   | 1.1 | 3         |
| 76 | Evaluation Measures for Multi-class Subgroup Discovery. Lecture Notes in Computer Science, 2009, , 35-50.   | 1.0 | 53        |
| 77 | Using Time Dependent Link Reduction to Improve the Efficiency of Topic Prediction in Co-Authorship Graphs. Studies in Computational Intelligence, 2009, , 173-184.  | 0.7 | 0         |
| 78 | Learning the morphology of Zulu with different degrees of supervision. , 2008, , .  |     | 4         |
| 79 | Querying and Merging Heterogeneous Data by Approximate Joins on Higher-Order Terms. Lecture Notes in Computer Science, 2008, , 226-243.   | 1.0 | 1         |
| 80 | Rule Induction. , 2007, , 229-267.  |     | 8         |
| 81 | An Improved Model Selection Heuristic for AUC. Lecture Notes in Computer Science, 2007, , 478-489.  | 1.0 | 20        |
| 82 | A Simple Lexicographic Ranker and Probability Estimator. Lecture Notes in Computer Science, 2007, , 575-582.  | 1.0 | 23        |
| 83 | Reinventing Machine Learning with ROC Analysis. Lecture Notes in Computer Science, 2006, , 4-5.   | 1.0 | 0         |
| 84 | ROC ?n? Rule Learning?Towards a Better Understanding of Covering Algorithms. Machine Learning, 2005, 58, 39-77.   | 3.4 | 180       |
| 85 | A Response to Webb and Ting?s On the Application of ROC Analysis to Predict Classification Performance Under Varying Class Distributions. Machine Learning, 2005, 58, 33-38.  | 3.4 | 73        |
| 86 | Combining Bayesian Networks with Higher-Order Data Representations. Lecture Notes in Computer Science, 2005, , 145-156.   | 1.0 | 7         |
| 87 | Logic for Learning: Learning Comprehensible Theories from Structured Data by John W. Lloyd, Springer-Verlag, 2003, hard cover: ISBN 3-540-42027-4, x + 256 pages. Theory and Practice of Logic Programming, 2004, 4, 753-755. | 1.1 | 0         |
| 88 | Delegating classifiers. , 2004, , .   |     | 34        |
| 89 | Redundant feature elimination for multi-class problems. , 2004, , .   |     | 28        |
| 90 | The 1st workshop on ROC analysis in artificial intelligence (ROCAI-2004). SIGKDD Explorations: Newsletter of the Special Interest Group (SIG) on Knowledge Discovery & Data Mining, 2004, 6, 159-161.                         | 3.2 | 9         |

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|-----|---|-----|-----------|
| 91  | Decision Support Through Subgroup Discovery: Three Case Studies and the Lessons Learned. Machine Learning, 2004, 57, 115-143.                       | 3.4 | 78        |
| 92  | Kernels and Distances for Structured Data. Machine Learning, 2004, 57, 205-232.   | 3.4 | 126       |
| 93  | Naive Bayesian Classification of Structured Data. Machine Learning, 2004, 57, 233-269.  | 3.4 | 103       |
| 94  | Hierarchical Bayesian Networks: An Approach to Classification and Learning for Structured Data. Lecture Notes in Computer Science, 2004, , 291-300. | 1.0 | 28        |
| 95  | An Analysis of Stopping and Filtering Criteria for Rule Learning. Lecture Notes in Computer Science, 2004, , 123-133.                               | 1.0 | 6         |
| 96  | Comparative Evaluation of Approaches to Propositionalization. Lecture Notes in Computer Science, 2003, , 197-214.                                   | 1.0 | 72        |
| 97  | Improving the AUC of Probabilistic Estimation Trees. Lecture Notes in Computer Science, 2003, , 121-132.  | 1.0 | 33        |
| 98  | RSD: Relational Subgroup Discovery through First-Order Feature Construction. Lecture Notes in Computer Science, 2003, , 149-165.                    | 1.0 | 28        |
| 99  | Decision Support for Data Mining. , 2003, , 81-90.  |     | 20        |
| 100 | Improved Dataset Characterisation for Meta-learning. Lecture Notes in Computer Science, 2002, , 141-152.  | 1.0 | 80        |
| 101 | Learning in Clausal Logic: A Perspective on Inductive Logic Programming. Lecture Notes in Computer Science, 2002, , 437-471.                        | 1.0 | 3         |
| 102 | Propositionalization Approaches to Relational Data Mining. , 2001, , 262-291.   |     | 153       |
| 103 | On the state of the art in machine learning: A personal review. Artificial Intelligence, 2001, 131, 199-222.  | 3.9 | 43        |
| 104 | Editorial: Inductive Logic Programming is Coming of Age. , 2001, 44, 207-209.   |     | 2         |
| 105 | Confirmation-Guided Discovery of First-Order Rules with Tertius. Machine Learning, 2001, 42, 61-95.   | 3.4 | 87        |
| 106 | An extended transformation approach to inductive logic programming. ACM Transactions on Computational Logic, 2001, 2, 458-494.                      | 0.7 | 60        |
| 107 | Multi-relational Data Mining: A Perspective. Lecture Notes in Computer Science, 2001, , 3-4.  | 1.0 | 0         |
| 108 | Internet Resources on ILP for KDD. , 2001, , 375-388.   |     | 0         |

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|-----|---|-----|-----------|
| 109 | Discovery of multivalued dependencies from relations. Intelligent Data Analysis, 2000, 4, 195-211.            | 0.4 | 28        |
| 110 | Predictive Performance of Weighted Relative Accuracy. Lecture Notes in Computer Science, 2000, , 255-264.     | 1.0 | 38        |
| 111 | Abductive and Inductive Reasoning: Background and Issues. Applied Logic Series, 2000, , 1-27.                 | 0.3 | 25        |
| 112 | On the Logic of Hypothesis Generation. Applied Logic Series, 2000, , 89-106.                                  | 0.3 | 12        |
| 113 | On the Relation between Abduction and Inductive Learning. , 2000, , 1-33.                                     |     | 10        |
| 114 | Logical Characterisations of Inductive Learning. , 2000, , 155-196.   |     | 8         |
| 115 | Knowledge Representation for Inductive Learning. Lecture Notes in Computer Science, 1999, , 160-167.          | 1.0 | 6         |
| 116 | 1BC: A First-Order Bayesian Classifier. Lecture Notes in Computer Science, 1999, , 92-103.                    | 1.0 | 53        |
| 117 | Rule Evaluation Measures: A Unifying View. Lecture Notes in Computer Science, 1999, , 174-185.                | 1.0 | 204       |
| 118 | Predicate invention in inductive data engineering. Lecture Notes in Computer Science, 1993, , 83-94.          | 1.0 | 21        |
| 119 | An analysis of various forms of "jumping to conclusions". Lecture Notes in Computer Science, 1992, , 170-186. | 1.0 | 2         |
| 120 | Second-order inductive learning. Lecture Notes in Computer Science, 1989, , 202-216.                          | 1.0 | 1         |
| 121 | Modern Logic and its Role in the Study of Knowledge. , 0, , 680-693.  |     | 6         |