List of Contributions by Year and Category
- In reverse order of publication -

Color-coding: Conference paper, Journal paper, Application conference paper, Statistics conference abstract, Medical conference abstract, Workshop paper, Thesis, Technical report.

Work in progress

- Madalina Fiterau, Ruth Urner and Artur Dubrawski, Informative Projection Ensembles: Theory and Algorithms for Interpretable Models.
- Madalina Fiterau, Mladen Kolar and Leila Wehbe. Sparsistent Additive Modeling in Multi-task Learning.

2017

- Ke Xiao, Heliodoro Tejeda, **Madalina Fiterau**, Jason Fries, James Priest and Christopher Ré, Automated Classification of Aortic Valve Morphology from Phase-Contrast Cardiac MRI Using an Augmented CNN, Medical Imaging Workshop at the Association of Neural Information Processing Systems Conference (MED-NIPS) 2017.
- Vincent Chen, Paroma Varma, **Madalina Fiterau**, Seung-Pyo Lee and James Priest and Christopher Ré, Generating Training Labels for Cardiac Phase-Contrast MRI Images, Medical Imaging Workshop at the Association of Neural Information Processing Systems Conference (MED-NIPS) 2017.
- Ferdinand Legros, **Madalina Fiterau,** Jennifer Hicks, Michael Schwartz and Scott Delp, Interpretable Hamstring Surgery Outcome Prediction with Linear Continuous Bayesian Networks. Interpretable Machine Learning Symposium at the Association of Neural Information Processing Systems Conference (IML-NIPS) 2017.
- **Madalina Fiterau**, Suvrat Bhooshan, Jason Fries, Charles Bournhonesque, Jennifer Hicks, Eni Halilaj, Christopher Ré and Scott Delp. ShortFuse: Biomedical Time Series Representations in the Presence of Structured Information. 3rd Conference on Machine Learning for Healthcare, MLHC 2017.
  This research was also presented as a poster at the Women in Statistics and Data Science Conference (WSDS) and Women in Machine Learning Workshop (WiML) 2017.
- Ferdinand Legros, **Madalina Fiterau**, Jennifer Hicks, Michael Schwartz and Scott Delp. Predicting the Outcome of Hamstring Surgery in Patients with Cerebral Palsy via Bayesian Networks. Big Data in Biomedicine, May 2017, Stanford.

2016

- **Madalina Fiterau**, Jason Fries, Eni Halilaj, Nopphon Siranart, Suvrat Bhooshan, Christopher Re, "Similarity-based LSTMs for Time Series Representation Learning in the Presence of Structured Covariates", NIPS 2016 Recurrent Neural Networks Symposium. Poster.
- **Madalina Fiterau**, Learning representations from time series data through contextualized LSTMs, Women in Machine Learning Workshop, December 2016. Oral Presentation.
- Manisha Desai, **Madalina Fiterau**, Jennifer Hicks, Thomas Robinson, Accelerometer Wear and Non-wear Classification using an Ensemble of Unsupervised Predictors, Joint Statistical Meeting, August 2016.
- Donghan Wang, **Madalina Fiterau** and Artur Dubrawski, VIPR: An Interactive Tool for Meaningful Visualization of High-Dimensional Data, Demonstration at the International Joint Conference in Artificial Intelligence IJCAI 2016.

- Peter Kontschieder, **Madalina Fiterau**, Antonio Criminisi and Samuel Rota-Bulo. Deep Neural Decision Forests, Sister Conference Best Paper Track at the International Joint Conference in Artificial Intelligence IJCAI 2016.
- **Fiterau M**, Wang J, Dubrawski A, Clermont G, Hravnak M, Pinsky MR. Using expert review to calibrate semi-automated adjudication of vital sign alerts in step-down units. Society of Critical Care Medicine Annual Congress 2016.
- Lujie Chen, Artur Dubrawski, Donghan Wang, **Madalina Fiterau**, Mathieu Guillame-Bert, Eliezer Bose, Ata M. Kaynar, Using Supervised Machine Learning to Classify Real Alerts and Artifact in Online Multisignal Vital Sign Monitoring Data. *Critical care medicine* 2016.

2015

- Peter Kontschieder, **Madalina Fiterau**, Antonio Criminisi and Samuel Rota-Bulo. Deep Neural Decision Forests, International Conference in Computer Vision, ICCV 2015.
- **Madalina Fiterau**, Artur Dubrawski, Karen Chen, Donghan Wang, Gilles Clermont, Marilyn Hravnak and Michael R. Pinsky, Detecting Artifacts in Clinical Alerts from Vital Signs, NIPS 2015 Workshop on Machine Learning in Healthcare. Poster.
- **Madalina Fiterau**, Artur Dubrawski, Donghan Wang. An Interactive System for the Extraction of Meaningful Visualizations from High-Dimensional data, Demonstration at the Neural Information Processing Systems Conference NIPS 2015.
- **Madalina Fiterau** and Artur Dubrawski, Theoretical Guarantees for the Construction of Informative Projection Ensembles using k-NN Classifiers, Women in Machine Learning Workshop, Montreal, Quebec, Canada, December 2015. Poster.
- **Madalina Fiterau** and Artur Dubrawski, Discovering Compact and Informative Structures through Data Partitioning. PhD Thesis. CMU, Machine Learning Department, Fall 2015. Committee: Geoff Gordon, Andreas Krause and Alex Smola.
- **Fiterau M**, Dubrawski A, Wang D, Chen L, Guillame-Bert M, Hravnak M, Clermont G, Bose E, Holder A, Murat Kaynar A, Wallace D, Pinsky MR. Semi-automated Adjudication of Vital Sign Alerts in Stepdown Units. Annual Congress of the European Society of Intensive Care Medicine 2015.
- **Madalina Fiterau** and Artur Dubrawski. Active learning for Informative Projection Recovery. In the Conference of the Association for the Advancement of Artificial Intelligence, volume 29, AAAI 2015.
- Nick Gisolfi, **Madalina Fiterau** and Artur Dubrawski. Finding Meaningful Gaps to Guide Data Acquisition for a Radiation Adjudication System. In the Conference of the Association for the Advancement of Artificial Intelligence, volume 29, AAAI 2015.
- Matt Barnes, Nick Gisolfi, **Madalina Fiterau** and Artur Dubrawski. Leveraging Common Structure to Improve Prediction across Related Datasets. In the Conference of the Association for the Advancement of Artificial Intelligence, volume 29, AAAI 2015.
- **Fiterau M**, Dubrawski A, Chen L, Hravnak M, Bose E, Clermont G, Pinsky MR. Archetyping artifacts in monitored noninvasive vital signs data. Society of Critical Care Medicine Annual Congress 2015.
- Wang D, **Fiterau M**, Dubrawski A, Hravnak M, Clermont G and Pinsky MR. Interpretable active learning in support of clinical data annotation. Society of Critical Care Medicine Annual Congress 2015.

2014

- **Madalina Fiterau** and Artur Dubrawski. Reducing Annotation Effort through Projection Retrieval in an Active Learning Setting. Women in Machine Learning Workshop, Montreal, Quebec, Canada, December 2014. Poster.

- **Fiterau M**, Dubrawski A, Chen L, Hravnak M, Clermont G, Bose E, Guillame-Bert M, Pinsky MR. Artifact adjudication for vital sign step-down unit data can be improved using Active Learning with low-dimensional models. Annual Congress of the European Society of Intensive Care Medicine 2014.
- Wang D, Chen L, **Fiterau M**, Dubrawski A, Hravnak M, Bose E, Wallace D, Kaynar M, Clermont G, Pinsky MR. Multi-tier ground truth elicitation framework with application to artifact classification for predicting patient instability. Annual Congress of the European Society of Intensive Care Medicine 2014.
- Hravnak M, Chen L, Dubrawski A, Clermont G, Bose E, **Fiterau M**, Guillame-Bert M, Pinsky MR. Supervised Machine learning can classify artifact in multi-signal vital sign monitoring data from Step-Down Unit (SDU) Patients. Annual Congress of the European Society of Intensive Care Medicine 2014.
- Hravnak M, Chen L, **Fiterau M**, Dubrawski A, Clermont G, Guillame-Bert M, Bose E, Pinsky MR. Active machine learning to increase annotation efficiency in classifying vital sign events as artifact or real alerts in continuous noninvasive monitoring. American Journal of Respiratory and Critical Care Medicine, 2014.
- Nicholas Gisolfi, **Madalina Fiterau** and Artur Dubrawski. Finding Gaps in Data to Guide Development of a Radiation Threat Adjudication System. 2014 Symposium on Radiation Measurements and Applications.

2013

- **Madalina Fiterau** and Artur Dubrawski. Informative projection recovery for classification, clustering and regression. In International Conference on Machine Learning and Applications, volume 12, ICMLA 2013.
- **Fiterau M**, Dubrawski A, Chen L, Hravnak M, Clermont G, Pinsky MR. Automatic Identification of Artifacts in Monitoring Critically Ill Patients. Annual Congress of the European Society of Intensive Care Medicine 2013; 39 Suppl 2: S470.
- Hravnak M, Chen L, Bose E, **Fiterau M**, Guillame-Bert M, Dubrawski A, Clermont G, Pinsky M, Artifact Patterns in Continuous Noninvasive Monitoring of Patients. Annual Congress of the European Society of Intensive Care Medicine 2013. 39 Suppl 2: S405.
- **Madalina Fiterau** and Artur Dubrawski. Detecting Artifacts in Clinical Data through Projection Retrieval. ICML Workshop on the Role of Machine Learning in Transforming Healthcare: Recent progress, Challenges and Opportunities, June 2013, Atlanta.
- **Madalina Fiterau** and Artur Dubrawski. An Application of Divergence Estimation to Projection Retrieval for Semi-supervised Classification and Clustering, ICML Workshop on Divergences and Divergence Learning. June 2013, Atlanta. Oral Presentation.

2012

- **Madalina Fiterau** and Artur Dubrawski. Projection retrieval for classification. In Advances in Neural Information Processing Systems 25, pages 3032–3040, 2012.
- **Madalina Fiterau** and Leila Wehbe. Feature-Task Bi-clustering in Multitask Regression. Women in Machine Learning Workshop, Lake Tahoe, Nevada, December 2012.
- **Madalina Fiterau** and Artur Dubrawski. Trade-offs in Explanatory Model Learning. Data Analysis Project, CMU, Machine Learning Department, Spring 2012.
- **Madalina Fiterau** and Artur Dubrawski. Explanation-Oriented Classification via Subspace Partitioning, CMU, Spring 2012.

2011

- **Madalina Fiterau** and Artur Dubrawski. Explaining Datasets through High-Accuracy Regions. Women in Machine Learning Workshop, Granada, Spain, December 2011. Oral presentation.
- **Madalina Fiterau**, Artur Dubrawski, Can Ye. Real-time Adaptive Monitoring of Vital Signs for Clinical Alarm Preemption. International Society for Disease Surveillance Annual Conference 2011.
- Rajas Lonkar, Artur Dubrawski, **Madalina Fiterau** and Roman Garnett, Mining Intensive Care Vitals for Leading Indicators of Adverse Health Events. International Society for Disease Surveillance Annual Conference 2011.
- **Madalina Fiterau**, Andrew Sheng, Venkat Senapati, Nagasrikanth Kallakuri and Robert Walzer. Real-time Algorithmic Detection of a Landing Site using Sensors aboard a Lunar Lander, Technical Report, Advanced Mobile Robot Development, CMU, Spring 2011.

2010

- **Madalina Fiterau** and Andrew Sheng. Pinpoint Landing through Landscape Matching and Terrain Evaluation, Technical Report, Mobile Robot Development, CMU, Fall 2010.

2009

- **Madalina Fiterau**, Olga Ormond and Gabriel-Miro Muntean. Performance of Handover for Multiple Users in Heterogeneous Wireless Networks. IEEE Conference on Local Computer Networks 2009.
- **Madalina Fiterau**, Gabriel-Miro Muntean, Ioan Jurca, Handover Algorithm Design and Simulation, Diploma Project, Bachelors in Computer Engineering, 'Politehnica' University of Timisoara, July 2009.