

Joint Workshop of BBDC, BZML and RIKEN AIP

Location: Hörsaal (Ground Floor), Fraunhofer Institute HHI
Einsteinufer 37, 10587 Berlin

Monday, September 09, 2019

9:00 – 9:20	Coffee
9:20 – 9:30	Opening Remarks (Klaus-Robert Müller, Masashi Sugiyama)
9:30 – 11:00	Klaus-Robert Müller, “Introduction of BZML”
Chair: Gitta Kutyniok	Masashi Sugiyama, “Introduction of RIKEN-AIP/ Weakly supervised learning”
	Hisashi Kashima, “Human computation”
	Coffee
11:30 – 12:30	Gitta Kutyniok, “Deep Learning and Modeling: Taking the Best out of Both Worlds”
Chair: Hisashi Kashima	Yasuo Tabei, “Scalable Machine Learning on Compressed Data”
12:30 - 15:00	Lunch + Poster/demo session 1 (Lunch will be served at the location)
15:00 – 16:00	Yuji Matsumoto, “Scientific Paper Analysis”
Chair: Klaus-Robert Müller	Leonhard Henning, Arne Binder, Sebastian Möller, “NLP@DFKI: Deep learning for information extraction from text”
	Coffee
16:30 – 17:30	Konrad Rieck, “Adversarial learning in a nutshell”
Chair: Takayuki Okatani	Hiromi Arai, “Privacy and fairness in machine learning”
19:00 –	Dinner (Invitation only)

Tuesday, September 10, 2019

9:00 – 9:30	Coffee
9:30 – 11:00 Chair: Masashi Sugiyama	Volker Markl, “Introduction of BBDC” Takayuki Okatani, “Tackling the major issue with deep learning for computer vision applications” Wojciech Samek, “Interpreting and Explaining Deep Models”
	Coffee
11:30 – 12:30 Chair: Volker Markl	Takanori Maehara, “How to resolve uncertainties for submodular maximization?” Ziawasch Abedjan, “A holistic approach for effective error detection”
12:30 – 15:00	Lunch break + Poster/demo session 2 (Lunch will be served at the location)
15:00 – 16:00 Chair: Yuji Matsumoto	Manfred Opper, Christian Donner, “Variational Bayesian Inference for Point Processes - a latent variable approach” Emtiyaz Khan, “Learning-algorithms from Bayesian principles”
	Coffee
16:30 – 17:30 Chair: Guiseppe Caire	Isao Ishikawa, “Metrics for dynamical systems via Perron-Frobenius operators on vector-valued RKHSs” Roland Schwarz, “Machine learning in molecular biology: variant effect prediction and prioritization”
17:30 – 17:40	Closing Remarks

Poster/Demo Presentations

(Day 1: Monday 9th, September)

Location: Hörsaal (Ground Floor), Fraunhofer Institute HHI Einsteinufer 37, 10587 Berlin

1 Posters

- MT-1** Dinesh Singh, Abhijeet Bhure, Sumit Mamtani, C Krishana Mahan, "Fast-BoW: Scaling Bag-of-Visual-Words Generation"
- MT-2** Masahiro Ikeda, "Finding Cheeger Cuts via Heat Equation on Hypergraph"
- MT-3** Koichi Tojo, Taro Yoshino, "A method to construct exponential families by representation theory"
- MT-4** Ning Zheng, Chao Li, Yuyuan Yu, Qibin Zhao, "Fast nonnegative tensor ring decomposition with graph structured data"
- MT-5** Takaaki Nishimoto, Yasuo Tabei, "LZRR: LZ77 Parsing with Right Reference"
- MT-6** Israr Ul Haq, Yoshinobu Kawahara, "Dynamic Information Extraction in Videos for Foreground Modeling"
- MT-7** Dharmesh Tailor, Mehdi Abbana Bennani, Michael Przystupa, Voot Tangkaratt, Mohammad Emtiyaz Khan, "Probabilistic Model-Based Reinforcement Learning with Natural-Gradient Variational Inference"
- MT-8** Emtiyaz Khan, Alexander Immer, Ehsan Abedi, Maciej Korzepa, "Approximate Inference turns Deep Networks into Gaussian Processes"
- MT-9** Hoang Nguyen, Takanori Maehara, "GNN: A Graph Signal Processing Perspective"
- MT-10** Heon Song, Daiki Suehiro, Seiichi Uchida, "Adaptive Aggregation of Arbitrary Online Trackers with a Regret Bound"
- MT-11** Takeshi Teshima, Miao Xu, Issei Sato, Masashi Sugiyama, "Clipped Matrix Completion: A Remedy for Ceiling Effects"
- MT-12** Han Bao, Masashi Sugiyama, "Calibrated Surrogate Maximization of Linear-fractional Utility in Binary Classification"
- M-13** Vignesh Srinivasan, Arturo Marban, Klaus-Robert Müller, Wojciech Samek, Shinichi Nakajima, "Defense against Adversarial Attacks by Langevin Dynamics"
- M-14** Mohammad Mahdavi, Ziawasch Abedjan, Raul Castro Fernandez, Samuel Madden, Mourad Ouzzani, Michael Stonebraker, and Nan Tang, "Raha: A Configuration-Free Error Detection System"
- M-15** Christoph Alt, Marc Hübner, Leonhard Hennig, "Improving Relation Extraction by Pre-trained Language Representations"
- M-16** Niklas Gebauer, Michael Gastegger, Kristof Schütt, "Symmetry-adapted generation of 3d point sets for the targeted discovery of molecules"

- M-17** Danh Le Phuoc, Anh Le Tuan, Md Kamrul Hassan and Prof. Manfred Hauswirth, "A Semantic Stream Fusion Framework"
- M-18** Daniel Arp, Max Boll, "Privacy Leaks via Audio Fingerprints"
- M-19** Robert Schmidtke, Florian Schintke, "Declarative and Application-Specific Management of Distributed Big Data"
- M-20** Steffen Zeuch, Bonaventura Del Monte, Jeyhun Karimov, Clemens Lutz, Manuel Renz, Jonas Traub, Sebastian Breß, Tilmann Rabl, and Volker Markl. 2019., "Analyzing efficient stream processing on modern hardware"
- M-21** Sergey Redyuk, Sebastian Schelter, Tammo Rukat, Volker Markl, Felix Biessmann, "Learning to Validate the Predictions of Black Box Machine Learning Models on Unseen Data"
- M-22** Viktor Rosenfeld, Sebastian Breß, Steffen Zeuch, Tilmann Rabl, Volker Markl, "Performance Analysis and Automatic Tuning of Hash Aggregation on GPUs"
- M-23** Alexander Renz-Wieland, Matthias Bertsch, Rainer Gemulla, "Scalable Frequent Sequence Mining With Flexible Subsequence Constraints"
- M-24** Philipp Grulich, "TBD"
- M-25** Ron Levie, Michael M. Bronstein, Gitta Kutyniok, "Transferability of graph CNNs"
- M-26** Jan Macdonald, Stephan Wäldchen, Sascha Hauch, Gitta Kutyniok, "A Rate-Distortion Framework for Explaining Neural Network Decisions"
- M-27** Theo Galy-Fajou, Florian Wenzel, Christian Donner, Manfred Opper, "Fast Inference in Non-Conjugate Gaussian Process Models via Data Augmentation"
- M-28** Tatiana A. Bubba, Gitta Kutyniok, Matti Lassas, Maximilian März, Wojciech Samek, Samuli Siltanen, Vignesh Srinivasan, "A Hybrid Deep Learning-Shearlet Framework for Limited Angle Computed Tomography"
- M-29** Sasho Nedelkoski, Mihail Bogojeski, "Multimodal Variational Inference with Continuous Normalizing Flows "

2 Demos

- Demo-M-1** Serafeim Papadias, "Distributed Query Processing under Dataflow Constraints"
- Demo-M-2** DIMA11, "Resense: Transparent Record and Replay of Sensor Data in the Internet of Things"

Poster/Demo Presentations

(Day 2: Tuesday 10th, September)

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- MT-12** Han Bao, Masashi Sugiyama, "Calibrated Surrogate Maximization of Linear-fractional Utility in Binary Classification"
- T-13** Simon Wiedemann, Heiner Kirchhoffer, Stefan Matlage, Paul Haase, Arturo Marban, Talmaj Marinc, David Neumann, Heiko Schwarz, Detlev Marpe, Thomas Wiegand, Wojciech Samek, "DeepCABAC: A Universal Compression Algorithm for Deep Neural Networks"
- T-14** Öyku Özlem Çakal, Mohammad Mahdavi, and Ziawasch Abedjan, "CLRL: Feature Engineering for Cross Language Record Linkage"
- T-15** Christoph Alt, Marc Hübner, Leonhard Hennig, "Fine-tuning Pre-Trained Transformer Language Models to Distantly Supervised Relation Extraction"
- T-16** Hannah Marienwald, Wiktor Pronobis, Klaus-Robert Müller, Shinichi Nakajima, "Tight Bound of Incremental Cover Trees for Dynamic Diversification"

- T-17** Mahsa Ghanbari, Uwe Ohler, "Deep neural networks for interpreting RNA binding protein target preferences"
- T-18** Rieke Kempfer, Gesa Loof, Alexander Kukalev, Ana Pombo, Roland Schwarz, "GAMIB-HEAR: whole-genome haplotype reconstruction from Genome Architecture Mapping data"
- T-19** Franz Besold, "Manifold Clustering with Adaptive Weights"
- T-20** Ariane Ziehn, Marcela Charfuelan, Holmer Hemsén, Volker Markl, "Time Series Similarity Search for Streaming Data in Distributed Systems"
- T-21** Jonas Traub, "TBD"
- T-22** Clemens Lutz, "TBD"
- T-23** Martin Kiefer, Max Heimel, Sebastian Breß, Volker Markl, "Estimating Join Selectivities using Bandwidth-Optimized Kernel Density Models"
- T-24** DIMA10, "TBD"
- T-25** Habib Mostafaei, Georgios Smaragdakis, "SDN-enabled Job Scheduler for Data Analytics"
- T-26** Hector Andrade Loarca, Gitta Kutyniok, Ozan Öktem and Philipp Petersen, "Extraction of Digital Wavefront Sets using Applied Harmonic Analysis and Deep Neural Networks"
- T-27** Martin Genzel, Gitta Kutyniok, Maximilian März, "A New Perspective on L1-Analysis Recovery?"
- T-28** Mones Raslan, "Solving Parametric Partial Differential Equations with Deep Neural Networks"
- T-29** Jeyhun Karimov, Tilmann Rabl, and Volker Markl, "AStream: Ad-hoc Shared Stream Processing"

2 Demos

- Demo-T-1** Ankit Chaudhary, "NebulaStream: operator placement in action"
- Demo-T-2** Haralampos Gavriilidis, "NebulaStream for Public Transport"