

Kirill Struminsky

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Education

- (B.A. + M.S.) Lomonosov Moscow State University, Faculty of Mechanics and Mathematics, 2010-2015
 - Specialized in Kolmogorov complexity and computational complexity
 - GPA 4.8/5.0 (with honors)
- (PhD) National Research University Higher School of Economic, Faculty of Computer Science, [Research Group For Bayesian Methods in Machine Learning](#), 2015-2018.
 - Areas of study: probabilistic models, structured prediction
 - Advisor: Dmitry Vetrov
 - Anticipated defence date April 2022
 - GPA 5.0/5.0 (passed the PhD preliminary exams)

Research Interests

- Probabilistic approach to machine learning: generative models, latent variable models, approximate inference
- Structured variables: structured discrete latent variables, structured prediction

Publications

- **K. Struminsky***, A. Gadetsky*, D. Rakitin*, D. Karpushkin, D. Vetrov, Leveraging Recursive Gumbel-Max Trick for Approximate Inference in Combinatorial Spaces. NeurIPS 2021
- A. Gadetsky*, **K. Struminsky***, C. Robinson, N. Quadrianto, D. Vetrov. *Low-variance black-box gradient estimates for the Plackett-Luce distribution*. AAAI 2020 (oral) & Bayesian Deep Learning Workshop at Neurips 2019 (spotlight)
- **K. Struminsky**, S. Lacoste-Julien, A. Osokin. *Quantifying Learning Guarantees for Convex but Inconsistent Surrogates*. NeurIPS 2018
- A. Atanov*, A. Ashukha*, **K. Struminsky**, D. Vetrov, M. Welling. The Deep Weight Prior. Modeling a prior distribution for CNNs using generative models. ICLR 2019
- M. Figurnov, **K. Struminsky**, D. Vetrov. Robust Variational Inference. NIPS Workshop on Advances in Approximate Bayesian Inference Workshop, 2016
- **K. Struminsky**, D. Vetrov. A Simple Method to Evaluate Support Size and Non-uniformity of a Decoder-Based Generative Model. International Conference on Analysis of Images, Social Networks and Texts, 2019.
- **K. Struminsky**, S. Kruglik, D. Vetrov, I. Oseledets. A New Approach for Sparse Bayesian Channel Estimation in SCMA Uplink Systems. International Conference on Wireless Communications and Signal Processing (WCSP) 2016
- **K. Struminsky**, A. Klenitskiy, A. Reshytko, D. Egorov, A. Shchepetnov, A. Sabirov, D. Vetrov, A. Semenikhin, O. Osmonalieva and B. Belozarov. Well Log Data Standardization, Imputation and Anomaly Detection Using Hidden Markov Models. Petroleum Geostatistics, 2019
- M. Figurnov, **K. Struminsky**, D. Vetrov. Noise-robust method for training of variational autoencoder, Intellectual Systems: Theory and Applications, vol. 21, issue 2, 90-109, 2017

Professional Experience

- **2018 - 2019** - Consultancy for a geological well log analysis project at IBM, Moscow
- **2020 - 2021** - Consultancy for a project on interpretable predictive models at Sber AI Lab, Moscow
- **2021 - present** - Consultancy for a project on improving reliability and robustness of predictive models at Huawei, Moscow

Teaching Experience

- **2016 - present** - Organizer of the *Research Seminar in Machine Learning and Applications* for undergraduate students at the Faculty of Computer Science at HSE University
- **2017 - present** Teaching assistant for “Bayesian Methods in Machine Learning” and “Bayesian Deep Learning” courses at the Moscow State University and the Yandex School of Data Analysis
- **2017 - 2019** Teaching fellow at [Deep Bayes Summer School](#)
- **Spring 2019** - Lecturer in Deep Generative Models at the [Yandex Data School](#) in Israel

Reviewing

- Conferences: Reviewer for AISTATS 2019, ICML 2019-2022, NeurIPS 2019-2020. Among top 33% reviewers at ICML 2020, among top 50% reviewers at NeurIPS 2019
- Journals: IEEE Transactions on Pattern Analysis and Machine Intelligence, Journal of Machine Learning Research