

Artyom Gadetsky

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RESEARCH INTERESTS

Probabilistic Modeling, Stochastic Gradient Estimation, Structured Discrete Variables, Monte Carlo, Deep Learning, Machine Learning.

PUBLICATIONS

(* denotes equal contribution)

CONFERENCES

Leveraging Recursive Gumbel-Max Trick for Approximate Inference in Combinatorial Spaces

Kirill Struminsky*, **Artyom Gadetsky***, Denis Rakitin*, Danil Karpushkin, Dmitry Vetrov
The 35th Conference on Neural Information Processing Systems (NeurIPS), 2021

Low-variance Black-box Gradient Estimates for the Plackett-Luce Distribution (oral)

Artyom Gadetsky*, Kirill Struminsky*, Chris Robinson, Novi Quadrianto, Dmitry Vetrov
In proceedings of the 34th AAAI Conference on Artificial Intelligence (AAAI), 2020

Conditional Generators of Words Definitions (poster session)

Artyom Gadetsky, Ilya Yakubovsky, Dmitry Vetrov
In proceedings of the 56th Annual Meeting of the
Association for Computational Linguistics (ACL), 2018

Conditional Generators of Words Definitions (poster session)

Artyom Gadetsky, Ilya Yakubovsky, Dmitry Vetrov
Best Student Work at DIALOGUE 2018

Conditional Generators of Words Definitions (poster session)

Artyom Gadetsky, Ilya Yakubovsky, Dmitry Vetrov
Presented poster at AINL 2017

WORKSHOPS

Low-variance Gradient Estimates for the Plackett-Luce Distribution (spotlight)

Artyom Gadetsky*, Kirill Struminsky*, Chris Robinson, Novi Quadrianto, Dmitry Vetrov
In proceedings of the Bayesian Deep Learning NeurIPS 2019 Workshop

AWARDS

- The Ilya Segalovich Scholarship 2021
Description: HSE Computer Science Faculty scholarship for outstanding achievements in study and research
- The Ilya Segalovich Award 2020
Description: Award for outstanding young researchers in CIS region (highly competitive)
- Increased State Academic Scholarship 2019/2020
Description: Winner in the scientific research section (receiving during spring semester)
- The Ilya Segalovich Scholarship 2019
Description: HSE Computer Science Faculty award for outstanding achievements in study and research
- Open HSE Student Research Paper Competition 2018
Description: Winner (3rd absolute place)
- Increased State Academic Scholarship 2018/2019
Description: Winner in the scientific research section (receiving during autumn semester)
- DIALOGUE 2018 conference
Description: Best Student Work for "Conditional Generators of Words Definitions"

RESEARCH EXPERIENCE

BayesGroup

- Topic: Monte Carlo Gradient Estimation for Discrete Latent Variable Models
 - Supervisor: Dmitry Vetrov
 - Description: research on variance reduction techniques for structured discrete latent variable models.

Present

	BayesGroup & Predictive Analytics Lab @ University of Sussex	
	<ul style="list-style-type: none"> ▪ Topic: Variance reduction techniques for Plackett-Luce distribution • Supervisors: Dmitry Vetrov, Novi Quadrianto • Description: Conducting research on causal inference and variance reduction techniques for discrete latent variable models with applications in structure learning of Directed Acyclic Graphs (DAGs). 	Aug 2018 – Jan 2020
	BayesGroup	
	<ul style="list-style-type: none"> ▪ Topic: Conditional Generators of Words Definitions • Supervisor: Dmitry Vetrov • Description: Work proposes conditional language model for word's definitions. Conducted experiments show that one particular word embedding contains information about most meanings of the corresponding word and that particular components of word embeddings can be interpretable. 	Oct 2016 – Aug 2018
	Graphics and Media Lab	
	<ul style="list-style-type: none"> ▪ Topic: Multiple Object Tracking • Supervisor: Anton Konushin • Description: Research on application of CNNs for tracking people in the crowd 	Jul 2016 – Aug 2016
	Graphics and Media Lab	
	<ul style="list-style-type: none"> ▪ Topic: 2D Scene Parsing with Generative Models • Supervisor: Anton Konushin • Description: Application of CNN for object classification and object labeling to set of synthetic data 	Dec 2015 – Jun 2016
	Graphics and Media Lab	
	<ul style="list-style-type: none"> ▪ Topic: Road Sign Classification • Supervisor: Anton Konushin • Description: Achieved 98 % accuracy in multiclass road sign classification using HOG and SVM 	Jul 2015 – Aug 2015
INDUSTRIAL EXPERIENCE	Huawei Research Moscow	
	Moscow, Russia	
	<ul style="list-style-type: none"> ▪ Supervisor: Dmitry Vetrov • Description: conducting research on knowledge distillation and domain generalization. 	Present
	Sberbank-HSE Laboratory	
	Moscow, Russia	
	<ul style="list-style-type: none"> ▪ Supervisor: Evgeny Sokolov • Description: conducting research on different text generative modeling tasks. 	2017 – 2020
TEACHING EXPERIENCE	<ul style="list-style-type: none"> ▪ Continuous Optimization course at HSE and MSU Role: Teaching fellow 	Present
	<ul style="list-style-type: none"> ▪ Neurobayesian Methods at HSE, MSU and YSDA Role: Teaching fellow 	Present
	<ul style="list-style-type: none"> ▪ Introduction to Deep Learning at HSE Role: Teaching fellow 	2018-2021
	<ul style="list-style-type: none"> ▪ Data Analysis course at HSE Role: Teaching fellow 	2018
	<ul style="list-style-type: none"> ▪ DeepBayes 2019 Summer School Role: Teaching assistant 	Aug 2018
	<ul style="list-style-type: none"> ▪ DeepBayes 2018 Summer School Role: Teaching assistant 	Aug 2018
	<ul style="list-style-type: none"> ▪ DeepBayes 2017 Summer School Role: Teaching assistant 	Aug 2017
	<ul style="list-style-type: none"> ▪ Coursera "Bayesian Methods in Machine Learning" course Role: Teaching assistant 	2017-2018
	<ul style="list-style-type: none"> ▪ "Bayesian Methods in Machine Learning" course at YSDA and CMC MSU Role: Teaching assistant 	2017-2018
	<ul style="list-style-type: none"> ▪ Machine Learning course at CS HSE Role: Teaching assistant 	Sep 2017 – Jul 2018
REVIEWER EXPERIENCE	<ul style="list-style-type: none"> ▪ ACL 2020 	

	<ul style="list-style-type: none"> ▪ AAAI 2021 	
OTHER EXPERIENCE	<ul style="list-style-type: none"> ▪ Microsoft Research AI Summer School 2018 Jul 2018 ▪ Visiting scholar at the University of Sussex, UK Description: hosted by Novi Quadrianto Jul 2019 – Aug 2019 ▪ Visiting scholar at the University of Sussex, UK Description: hosted by Novi Quadrianto Nov 2019 	
TALKS	<ul style="list-style-type: none"> University of Amsterdam AMLab Seminar (in english) Topic: Leveraging Recursive Gumbel-Max Trick for Approximate Inference in Combinatorial Spaces Nov 2021 AAAI 2020 conference (in english) Topic: Low-variance Black-box Gradient Estimates for the Plackett-Luce Distribution Feb 2020 DataFest 2020 (in russian) Topic: Low-variance Black-box Gradient Estimates for the Plackett-Luce Distribution Oct 2020 DataFest 2018 (in russian) Topic: Conditional Generators of Words Definitions Apr 2018 DIALOGUE 2018 (in russian) Topic: Word Sense Induction and Definition Modeling Jun 2018 	
EDUCATION	<p>National Research University Higher School of Economics Skolkovo Institute of Science and Technology Moscow, Russia</p> <ul style="list-style-type: none"> ▪ M.S. in Statistical Learning Theory • Degree with honors • GPA: 4.84 / 5 2018 – 2020 <p>National Research University Higher School of Economics Moscow, Russia</p> <ul style="list-style-type: none"> ▪ B.S. in Computer Science, Machine Learning Major • Degree with honors • GPA: 4.76 / 5 2014 – 2018 	
NOMINATIONS	<ul style="list-style-type: none"> ▪ The Ilya Segalovich Award 2019 Description: Finalist ▪ Silver Nestling Golden HSE Award 2018 Description: Finalist ▪ The Ilya Segalovich Scholarship 2017 Description: Nominee ▪ The Ilya Segalovich Scholarship 2016 Description: Nominee 	