

Igor Shalyminov

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EDUCATION

Heriot-Watt University	Dec 2020
<i>Doctor of Philosophy in Computer Science (Thesis: Data-Efficient Methods for Dialogue Systems)</i>	
Yandex School of Data Analysis / Moscow Institute of Physics and Technology	June 2012
<i>Professional Retraining in Data Analysis (MSc equiv.)</i>	<i>GPA: 4.66/5.0</i>
Moscow State University of Instrument Engineering and Computer Science	June 2010
<i>Specialist (MSc equiv.) – with distinction</i>	<i>GPA: 5.0/5.0</i>

AWARDS

<i>Dialog System Technology Challenge (DSTC) 8, Fast Domain Adaptation – 1st place</i>	<i>2019</i>
<i>Amazon Alexa Prize 2018 (part of team Alana) – 3rd place prize</i>	<i>2018</i>
<i>Amazon Alexa Prize 2017 (part of team Alana) – 3rd place prize</i>	<i>2017</i>
<i>James Watt Scholarship from Heriot-Watt University</i>	<i>2016</i>
<i>Featured in Moscow's Best Graduates journal</i>	<i>2010</i>

WORK EXPERIENCE

Amazon <i>Applied Scientist</i>	2021 – Present
Dialogue summarization for AWS ContactLens; Low-resource ASR for Alexa	
Alana AI <i>Consultant (research engineering)</i>	2020 – 2021
Goal-oriented dialogue system bootstrapping	
Microsoft Research Lab – Montréal <i>Research Intern</i>	2019 – 2019
Dialog System Technology Challenge (DSTC) 8 Fast Domain Adaptation, best performing system as per human evaluation	
Microsoft Research Lab – Redmond <i>Research Intern</i>	2018 – 2018
Improving robustness of goal-oriented dialogue systems	
Yandex <i>Software Engineer</i>	2013 – 2016
Goal-oriented dialogue platform; voice analytics for call-centers; search engine for linguistic research, The Russian National Corpus	
Yandex Data Analysis School / Moscow Institute of Physics and Technology <i>Teaching Assistant</i>	2013 – 2015
Natural Language Processing course	
Microsoft Research Lab – Redmond <i>Research Intern</i>	2014 – 2014
Query optimization for a term-distributed search engine	
Yandex <i>Software Engineer Intern → Junior Software Engineer</i>	2011 – 2013
Search engine for linguistic research, The Russian National Corpus	
Intel <i>Software Engineer Intern</i>	2010 – 2010
Loop execution time analysis in the Intel C++ Compiler for Itanium architectures	
Moscow State University of Instrument Engineering and Computer Science <i>Software Engineer</i>	2006 – 2012
“Prognosis” software suite for the reliability estimation of the equipment used in nuclear energetics	

SKILLS

Languages: Python, C++, Java, Perl, L^AT_EX | **Frameworks:** PyTorch, HuggingFace, Tensorflow, scikit-learn, numpy/scipy, pandas, Lucene | **Core Technical Skills:** algorithms and data structures, classical machine & deep learning, natural language processing, large language models (LLMs)

1. Liyan Tang, Igor Shalymov, Amy Wing mei Wong, Jon Burnsky, Jake W. Vincent, Yu'an Yang, Siffi Singh, Song Feng, Hwanjun Song, Hang Su, Lijia Sun, Yi Zhang, Saab Mansour, and Kathleen McKeown. Tofueval: Evaluating hallucinations of llms on topic-focused dialogue summarization, 2024
2. Hwanjun Song, Igor Shalymov, Hang Su, Siffi Singh, Kaisheng Yao, and Saab Mansour. Enhancing abstractiveness of summarization models through calibrated distillation. In *Findings of EMNLP 2023*, 2023
3. Igor Shalymov, Alessandro Sordani, Adam Atkinson, and Hannes Schulz. Grtr: Generative-retrieval transformers for data-efficient dialogue domain adaptation. *IEEE ACM Trans. Audio Speech Lang. Process.*, 29:2484–2492, 2021
4. I. Shalymov, A. Sordani, A. Atkinson, and H. Schulz. Fast domain adaptation for goal-oriented dialogue using a hybrid generative-retrieval transformer. In *ICASSP 2020 - 2020 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, pages 8039–8043, 2020
5. Igor Shalymov, Alessandro Sordani, Adam Atkinson, and Hannes Schulz. Hybrid generative-retrieval transformers for dialogue domain adaptation. *Dialog State Tracking Challenge 8, DSTC8AAAI 2020*, 2020
6. Igor Shalymov, Sungjin Lee, Arash Eshghi, and Oliver Lemon. Data-efficient goal-oriented conversation with dialogue knowledge transfer networks. In Kentaro Inui, Jing Jiang, Vincent Ng, and Xiaojun Wan, editors, *Proceedings of the 2019 Conference on Empirical Methods in Natural Language Processing and the 9th International Joint Conference on Natural Language Processing, EMNLP-IJCNLP 2019, Hong Kong, China, November 3-7, 2019*, pages 1741–1751. Association for Computational Linguistics, 2019
7. Igor Shalymov, Sungjin Lee, Arash Eshghi, and Oliver Lemon. Few-shot dialogue generation without annotated data: A transfer learning approach. In *Proceedings of the 20th Annual SIGdial Meeting on Discourse and Dialogue*, pages 32–39, Stockholm, Sweden, September 2019. Association for Computational Linguistics
8. S. Lee and I. Shalymov. Contextual out-of-domain utterance handling with counterfeit data augmentation. In *ICASSP 2019 - 2019 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, pages 7205–7209, May 2019
9. Igor Shalymov and Sungjin Lee. Improving robustness of neural dialog systems in a data-efficient way with turn dropout. *The Second NeurIPS Workshop on Conversational AI: “Today’s Practice and Tomorrow’s Potential”*, abs/1811.12148, 2018
10. Igor Shalymov, Arash Eshghi, and Oliver Lemon. Multi-Task Learning for Domain-General Spoken Disfluency Detection in Dialogue Systems. In *Proceedings of the 22st Workshop on the Semantics and Pragmatics of Dialogue (SemDial 2018 - AixDial)*, 2018
11. Igor Shalymov, Ondrej Dusek, and Oliver Lemon. Neural response ranking for social conversation: A data-efficient approach. In *Proceedings of the 2nd International Workshop on Search-Oriented Conversational AI, SCAI@EMNLP 2018, Brussels, Belgium, October 31, 2018*, pages 1–8, 2018
12. Amanda Cercas Curry, Ioannis Papaioannou, Alessandro Suglia, Shubham Agarwal, Igor Shalymov, Xinnuo Xu, Ondrej Dusek, Arash Eshghi, Ionnis Konstantas, Verena Rieser, and Oliver Lemon. Alana v2: Entertaining and informative open-domain social dialogue using ontologies and entity linking. In *2018 Alexa Prize Proceedings*, 2018
13. Igor Shalymov, Arash Eshghi, and Oliver Lemon. Challenging Neural Dialogue Models with Natural Data: Memory Networks Fail on Incremental Phenomena. In *Proceedings of the 21st Workshop on the Semantics and Pragmatics of Dialogue (SemDial 2017 - SaarDial)*, 2017
14. Arash Eshghi, Igor Shalymov, and Oliver Lemon. Bootstrapping incremental dialogue systems from minimal data: the generalisation power of dialogue grammars. In *Proceedings of the 2017 Conference on Empirical Methods in Natural Language Processing, EMNLP 2017, Copenhagen, Denmark, September 9-11, 2017*, pages 2220–2230, 2017
15. Arash Eshghi, Igor Shalymov, and Oliver Lemon. Bootstrapping dialogue systems: the contribution of a semantic model of interactional dynamics. In *Proceedings of the Conference on Logic and Machine Learning in Natural Language (LaML 2017)*, 2017
16. Arash Eshghi, Igor Shalymov, and Oliver Lemon. Interactional dynamics and the emergence of language games. *CEUR Workshop Proceedings*, 1863:17–21, 2017
17. Ioannis Papaioannou, Amanda Cercas Curry, Jose L. Part, Igor Shalymov, Xinnuo Xu, Yanchao Yu, Ondrej Dušek, Verena Rieser, and Oliver Lemon. Alana: Social dialogue using an ensemble model and a ranker trained on user feedback. In *2017 Alexa Prize Proceedings*, 2017

PROFESSIONAL SERVICE

Program committee/reviewing: AAAI 2020—2024, EACL 2021, ICASSP 2023—2024, ACL 2018—2023, EMNLP 2018—2023, NAACL Main/Industry 2021—2024, COLING 2018—2022, IEEE/ACM TASLP 2021—2022, SCAI@EMNLP 2020, SCAI@IJCAI 2019, SCAI@EMNLP 2018, COLM 2024