

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 – Pres
LLM Conversational Agents @ Alexa past: Dialogue summarization @ AWS AI Labs, Low-resource ASR @ 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. Hwanjun Song, Hang Su, Igor Shalyminov, Jason Cai, and Saab Mansour. FineSurE: Fine-grained summarization evaluation using LLMs. In Lun-Wei Ku, Andre Martins, and Vivek Srikumar, editors, *Proceedings of the 62nd Annual Meeting of the Association for Computational Linguistics (Volume 1: Long Papers)*, pages 906–922, Bangkok, Thailand, August 2024. Association for Computational Linguistics
2. Jason Cai, Hang Su, Monica Sunkara, Igor Shalyminov, and Saab Mansour. CERET: Cost-effective extrinsic refinement for text generation. In Kevin Duh, Helena Gomez, and Steven Bethard, editors, *Proceedings of the 2024 Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies (Volume 1: Long Papers)*, pages 7377–7390, Mexico City, Mexico, June 2024. Association for Computational Linguistics
3. Shunqi Mao, Chaoyi Zhang, Hang Su, Hwanjun Song, Igor Shalyminov, and Weidong Cai. Controllable contextualized image captioning: Directing the visual narrative through user-defined highlights. In *Proceedings of the 18th European Conference on Computer Vision (ECCV)*, 2024
4. Liyan Tang, Igor Shalyminov, 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. In *NAACL 2024*, 2024
5. Hossein Aboutalebi, Hwanjun Song, Yusheng Xie, Arshit Gupta, Justin Sun, Hang Su, Igor Shalyminov, Nikolaos Pappas, Siffi Singh, and Saab Mansour. Magid: An automated pipeline for generating synthetic multi-modal datasets. In *NAACL 2024*, 2024
6. Jianfeng He, Hang Su, Jason Cai, Igor Shalyminov, Hwanjun Song, and Saab Mansour. Semi-supervised dialogue abstractive summarization via high-quality pseudolabel selection. In *NAACL 2024*, 2024
7. Yuwei Zhang, Siffi Singh, Sailik Sengupta, Igor Shalyminov, Hang Su, Hwanjun Song, and Saab Mansour. Can your model tell a negation from an implicature? unravelling challenges with intent encoders, 2024
8. Hwanjun Song, Igor Shalyminov, Hang Su, Siffi Singh, Kaisheng Yao, and Saab Mansour. Enhancing abstractiveness of summarization models through calibrated distillation. In *Findings of EMNLP 2023*, 2023
9. Igor Shalyminov, Alessandro Sordoni, 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
10. I. Shalyminov, A. Sordoni, 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
11. Igor Shalyminov, Alessandro Sordoni, Adam Atkinson, and Hannes Schulz. Hybrid generative-retrieval transformers for dialogue domain adaptation. *Dialog State Tracking Challenge 8, DSTC8AAAI 2020*, 2020
12. Igor Shalyminov, 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
13. Igor Shalyminov, 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
14. S. Lee and I. Shalyminov. 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
15. Igor Shalyminov 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
16. Igor Shalyminov, 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

17. 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
18. 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
19. 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
20. 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
21. 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
22. Arash Eshghi, Igor Shalymov, and Oliver Lemon. Interactional dynamics and the emergence of language games. *CEUR Workshop Proceedings*, 1863:17–21, 2017
23. 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—2025, 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