# Victor Prokhorov

### Skills

### Programming

Python, PyTorch (see: pps-vae), TensorFlow (see: hsvae, kl-text-vae, text2path)

#### O Research Communication

communicated my research via publications at: AAAI, NAACL, EMNLP; communicated research for public audiences of peers: invited poster presentation at Microsoft Research Cambridge, UK, 2020 and invited poster presentation at Google NLP Summit, Zurich, Switzerland, 2019; released open source code for the reproducible research: pps-vae, hsvae, kl-text-vae, text2path

# Work Experiences

Apr. 2022 **Postdoctoral Researcher**, University of Edinburgh, ExLab, working with Apr. 2024 Siddharth N. and Ivan Titov

o project; topics: deep generative models, interpretability, representation learning; data type: images; outcome: code and publication.

Sep. 2020 **Research Internship**, Montreal Institute for Learning Algorithms (MILA), Dec. 2020 working with Siva Reddy

o topics: deep generative models, interpretability, representation learning; data type: language (text)

### Selected Publications

- Victor Prokhorov and Ivan Titov and Siddharth N "Autoencoding Conditional Neural Processes for Representation Learning" in ArXiv, 2023
- Mattia Opper and Victor Prokhorov and Siddharth N, "StrAE: Autoencoding for Pre-Trained Embeddings using Explicit Structure" in EMNLP (main conference), 2023
- O Victor Prokhorov and Yingzhen Li and Ehsan Shareghi and Nigel Collier, "Learning Sparse Sentence Encoding without Supervision: An Exploration of Sparsity in Variational Autoencoders" in Proceedings of the 6th Workshop on Representation Learning for NLP, 2021
- Lan Zhang and Victor Prokhorov and Ehsan Shareghi, "Unsupervised Representation Disentanglement of Text: An Evaluation on Synthetic Datasets" in Proceedings of the 6th Workshop on Representation Learning for NLP, 2021
- O Victor Prokhorov and Ehsan Shareghi and Yingzhen Li and Mohammad Taher Pilehvar and Nigel Collier, "On the Importance of the Kullback-Leibler Divergence Term in Variational Autoencoders for Text Generation" in Proceedings of the 3rd Workshop on Neural Generation and Translation, 2019

- Victor Prokhorov, Mohammad Taher Pilehvar, Dimitri Kartsaklis, Pietro Lio, Nigel Collier "Unseen Word Representation by Aligning Heterogeneous Lexical Semantic Space" in Proceedings of the AAAI Conference on Artificial Intelligence, 2019
- O Victor Prokhorov, Mohammad Taher Pilehvar, Nigel Collier "Generating knowledge graph paths from textual definitions using sequence-to-sequence models" in Proceedings of the 2019 Conference of the North American Chapter of the Association for Computational Linguistics (NAACL): Human Language Technologies, Volume 1

# Education

- Oct. 2017 **Ph.D. Computation, Cognition and Language**, University of Cambridge, Jan. 2022 Cambridge, UK
  - o **Ph.D. Thesis:** "Injecting Inductive Biases into Distributed Representations of Text," under supervision of Nigel Collier and Ehsan Shareghi
- Oct. 2016 MPhil in Advanced Computer Science, Grade: Distinction, University of
- Jun. 2017 Cambridge, Cambridge, UK
- Sep. 2013 BEng in Computer Science and Electronics, Grade: First Class, University
- Jul. 2016 of Bristol, Bristol, UK

### ■ Honors & Awards

- o Mitacs Globalink Research (Mitacs, **Awarded**; the award required in person presence in Canada; due to COVID did not accept)
- o Student Travel Grant (Workshop: Neural Generation and Translation)

## Activities

- o Co-organiser for Edinburgh NLP Meetings, 2022-2023
- o Co-organiser for Dagstuhl ELLIS NLP Workshop, 2022
- o Reviewer for ICLR, 2022 and ACL ARR, 2021