Victor Prokhorov

Skills

o 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 2023 (main)
- 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 RepL4NLP 2021 (workshop)
- o Lan Zhang and Victor Prokhorov and Ehsan Shareghi, Unsupervised Representation Disentanglement of Text: An Evaluation on Synthetic Datasets in RepL4NLP 2021 (workshop)
- 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 WNGT 2019 (workshop)

- o Victor Prokhorov, Mohammad Taher Pilehvar, Dimitri Kartsaklis, Pietro Lio, Nigel Collier, Unseen Word Representation by Aligning Heterogeneous Lexical Semantic Space in AAAI 2019
- Victor Prokhorov, Mohammad Taher Pilehvar, Nigel Collier, Generating knowledge graph paths from textual definitions using sequence-to-sequence models in NAACL 2019

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

- 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