IGOR MELNYK

IBM Thomas J. Watson Research Center ◇ AI Foundations Group ◇ Yorktown Heights, NY

+1 (914) 945-2921 ◇ igor.melnyk@ibm.com ◇ tinyurl.com/igormelnyk

SUMMARY

Research staff member at IBM with 6+ years of experience working in the areas of Machine Learning and AI with the focus on Generative models in Natural Language Processing, Computer Vision and Biology

EDUCATION

PhD in Computer Science and Engineering, University of Minnesota, Mineapolis, MN   June, 2016

MS in Computer Science, University of Colorado, Boulder, CO   May, 2009

BS in Computer Science, Dnipro National University, Dnipro, Ukraine   June, 2004

RESEARCH INTERESTS / SKILLS

Machine Learning / AI	Generative Models, Knowledge Graph, Protein Design, Anomaly Detection Style Transfer, Information Theory, Image Captioning
Technical Skills	Python/C++, Pytorch/Tensoflow

EXPERIENCE

Research Staff Member   Sep 2016 - Present
IBM Research AI   *Yorktown Heights, NY*

Research Assistant   Sep 2009 - June 2016
University of Minnesota   *Minneapolis, MN*

Data Scientist   May 2014 - Aug 2014
NASA Ames Research Center   *Mountain View, CA*

Software Developer   May 2008 - Aug 2008
Cisco Systems   *Boulder, CO*

SELECTED PUBLICATIONS

- AlphaFold Distillation for Improved Inverse Protein Folding, *Preprint, 2022*

- Cloud-Based Real-Time Molecular Screening Platform with MolFormer, *ECML PKDD, 2022*

- Knowledge Graph Generation From Text, *EMNLP, 2022*

- Image Captioning as an Assistive Technology: Lessons Learned from VizWiz 2020 Challenge, *JAIR, 2022*

- Tabular Transformers for Modeling Multivariate Time Series, *ICASSP, 2021*

- Optimizing Mode Connectivity via Neuron Alignment, *NeurIPS, 2020*

- Estimating Information Flow in Neural Networks, *ICML, 2019*

- Fighting Offensive Language on Social Media with Unsupervised Text Style Transfer, *ACL, 2018*

SELECTED CODE

- github.com/IBM/Grapher: Knowledge Graph Generation From Text

- github.com/IBM/TabFormer: Tabular Transformers for Modeling Multivariate Time Series

- github.com/IBM/regen: Reinforced Generation for Graph-to-Text and Text-to-Graph generative tasks