

Maria Ryskina

Carnegie Mellon University
School of Computer Science
Language Technologies Institute
5000 Forbes Ave, Pittsburgh, PA 15213

mryskina@cs.cmu.edu
<http://www.cs.cmu.edu/~mryskina/>

EDUCATION

Carnegie Mellon University <i>Ph.D. student, Language and Information Technologies</i> Advisors: Matthew R. Gormley, Eduard Hovy, Taylor Berg-Kirkpatrick	Pittsburgh, PA 2016 – present
Skolkovo Institute of Science and Technology <i>M.Sc., Information Technology, with honors</i>	Moscow, Russia 2014 – 2016
Moscow Institute of Physics and Technology <i>M.Sc., Applied Mathematics and Physics, with honors</i> <i>B.Sc., Applied Mathematics and Physics, with honors</i>	Moscow, Russia 2014 – 2016 2010 – 2014

RESEARCH

Carnegie Mellon University <i>Graduate Research Assistant</i> · Doctoral research: learning computational models of non-standard orthographic, morphological, and lexical choices in written language, viewed both as user-specific idiosyncrasies and through the lens of large-scale language change. · Advisors: Matthew R. Gormley, Eduard Hovy, Taylor Berg-Kirkpatrick	Pittsburgh, PA 2016 – present
Massachusetts Institute of Technology <i>Visiting Graduate Student, CSAIL Infolab</i> · Master's thesis: generating visual representations of text for entailment detection. · Mentors: Boris Katz, Andrei Barbu	Cambridge, MA Sep 2015 – Jan 2016
Moscow Institute of Physics and Technology & Dorodnicyn Computing Centre of RAS <i>Undergraduate Student, Intelligent Systems Subdept.</i> · Undergraduate thesis: regularizing topic models for improving stability and interpretability. · Advisor: Konstantin Vorontsov	Moscow, Russia 2013 – 2014

WORK EXPERIENCE

DiDi Labs www.didi-labs.com <i>Research Intern</i> · Reinforcement learning for training task-oriented dialog agents in a self-play setting. · Probing integer embeddings learned from mathematical data for number-theoretic knowledge. · Mentor: Kevin Knight	Remote May 2020 – Aug 2020
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- Evaluating topic modeling-based corpus search methods for plagiarism detection.

AWARDS AND HONORS

Diverse Intelligences Summer Institute Fellowship Templeton World Charity Foundation	2021
Skoltech Academic Excellence Award, Russia	2016
State Academic Scholarship for research achievements, Russia	2013 – 2014
Abramov-Frolov Foundation Scholarship for academic achievements, Russia	2010 – 2012

PUBLICATIONS

* denotes equal contribution

CONFERENCE AND WORKSHOP PAPERS

UniMorph 4.0: Universal Morphology

K. Batsuren*, O. Goldman* *et al.*, including M. Ryskina
Language Resources and Evaluation Conference (LREC), 2022.

Learning Mathematical Properties of Integers

M. Ryskina, K. Knight
BlackboxNLP Workshop on Analyzing and Interpreting Neural Networks for NLP, 2021.

SIGMORPHON 2021 Shared Task on Morphological Reinflection: Generalization Across Languages

T. Pimentel*, M. Ryskina* *et al.*
SIGMORPHON Workshop on Computational Research in Phonetics, Phonology, and Morphology, 2021.

Comparative Error Analysis in Neural and Finite-state Models for Unsupervised Character-level Transduction

M. Ryskina, E. Hovy, T. Berg-Kirkpatrick, M. R. Gormley
SIGMORPHON Workshop on Computational Research in Phonetics, Phonology, and Morphology, 2021.

NoiseQA: Challenge Set Evaluation for User-Centric Question Answering

A. Ravichander, S. Dalmia, M. Ryskina, F. Metze, E. Hovy, A. W. Black
Conference of the European Chapter of the Association for Computational Linguistics (EACL), 2021.

Phonetic and Visual Priors for Decipherment of Informal Romanization

M. Ryskina, M. R. Gormley, T. Berg-Kirkpatrick
Annual Meeting of the Association for Computational Linguistics (ACL), 2020.

Where New Words Are Born: Distributional Semantic Analysis of Neologisms and Their Semantic Neighborhoods

M. Ryskina, E. Rabinovich, T. Berg-Kirkpatrick, D. R. Mortensen, Y. Tsvetkov
Annual Meeting of the Society for Computation in Linguistics (SCiL), 2020.

OPERA: Operations-oriented Probabilistic Extraction, Reasoning, and Analysis (2019)

E. Hovy *et al.*, including M. Ryskina
Text Analysis Conference (TAC), 2019.

OPERA: Operations-oriented Probabilistic Extraction, Reasoning, and Analysis (2018)

E. Hovy *et al.*, including M. Ryskina
Text Analysis Conference (TAC), 2018.

Automatic Composer Attribution in the First Folio of Shakespeare

M. Ryskina, H. Alpert-Abrams, D. Garrette, T. Berg-Kirkpatrick
Annual Meeting of the Association for Computational Linguistics (ACL), 2017.

PREPRINTS

Two Approaches to Building Collaborative, Task-Oriented Dialog Agents through Self-Play

A. Arkhangorodsky, S. Fang, V. Knight, A. Nagesh, M. Ryskina, K. Knight
Preprint, 2021.

INVITED TALKS

Learning Computational Models of Non-Standard Language

LCC Lab, University of Toronto
EvLab, Massachusetts Institute of Technology
CLunch Seminar Series, University of Pennsylvania
MCQLL Lab, McGill University

Feb – Mar 2022

Romanization with Friends: Deciphering Informally Romanized Text

NLP With Friends Seminar Series

Nov 2021

Unsupervised Decipherment of Informal Romanization

NLPhD Speaker Series, Saarland University

Jun 2021

Informal Romanization across Languages and Scripts

SIGTYP Lecture Series

Jun 2021

TEACHING

TA and Guest lecturer for CMU 11-711: Algorithms for NLP. Instructor: Yulia Tsvetkov.

Fall 2018

TA for CMU 11-711: Algorithms for NLP. Instructor: Taylor Berg-Kirkpatrick.

Fall 2017

SERVICE

Organizing and professional service:

- Technical advisory group member for OpenITI Arabic-script OCR Catalyst Project, 2022
- Co-organizer for SIGMORPHON Shared Task 0: Generalization in Morphological Inflection Generation, 2021
- Co-host for SIGTYP Lecture Series, 2021

Reviewing:

- Journals: Cognitive Science (2021), Review of General Psychology (2021)

- Conferences: ACL Rolling Review (2021–2022), ACL (2021), EMNLP (2021), CoNLL (2020–2021); as secondary reviewer: EACL (2021), EMNLP (2018, 2020)
- Workshops: *ACL SRW (2020–2021), NeurIPS HAMLETS (2020)

Volunteering:

- Co-organizer for oSTEM/Queer in AI Graduate School Application Review and Fee Aid Programs, 2021
- Student reviewer for CMU LTI Graduate Admissions, 2021
- Mentor for CMU SCS Graduate Application Support Program, 2020–2021
- Mentor for CMU LTI Peer Mentoring Program for new graduate students, 2021
- Mentor for CMU AI Mentoring Program for undergraduates from underrepresented groups, 2020