Anastasia Kuznetsova

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GitHub: github.com/ana-kuznetsova

Website:

https://ana-kuznetsova.github.io/

EDUCATION

Indiana University

Bloomington, IN, USA

Ph.D. Candidate in Computer Science and Computational Linguistics (Dual major)

Advisors: M. Kim (Chair, IU Intelligent Systems Engineering),

F. Tyers (Chair, IU Linguistics)

2019-Present

NRU Higher School of Economics

M.A. in Computational Linguistics

Advisor: F.Tyers

Moscow, Russia

2017-2019

2013-2017

Russian State University for the Humanities

B.A. in Social Anthropology

Moscow, Russia

PUBLICATIONS

Conference papers

- [C5] Anastasia Kuznetsova, Aswin Sivaraman, Minje Kim, "The potential of Neural Speech Synthesis-based Data Augmentation for Personalized Speech Enhancement," Proc. 2023 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP), 2023, 1 5.
- [C4] Anastasia Kuznetsova, Anurag Kumar, Jennifer Drexler-Fox and Francis Tyers, "Curriculum Optimization for Low-resource Speech Recognition," Proc. 2022 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP), 2022, 8187 8191.
- [C3] Piyush Vyas, Anastasia Kuznetsova and Donald S. Williamson, "Optimally Encoding Inductive Biases into the Transformer Improves End-to-End Speech Translation," Proc. Interspeech, 2021, 2287 – 2291. Winner of 2021 Interspeech Best Student Paper Award.
- [C2] Anastasia Kuznetsova and Francis Tyers, "A finite-state morphological analyser for Paraguayan Guaraní," Proc. of the First Workshop on Natural Language Processing for Indigenous Languages of the Americas, 2021, 81 89.
- [C1] Anna Zueva, **Anastasia Kuznetsova** and Francis Tyers, "A finite-state morphological analyser for evenki," Proc. of The 12th Language Resources and Evaluation Conference (LREC), 2020, 2581 2589.

EMPLOYMENT

Google LLC

Student Researcher

Remote, IN, USA

September 2023 – December 2023

- Supervised clustering for speaker diarization.

Google LLC Research Intern New York, NY, USA

May 2023 - July 2023

- Reinforcement Learning based supervised clustering for speaker diarization.

Coqui.ai

Rev.com

Research Intern, Text-to-Speech (TTS)

Remote, Willington, DE, USA June 2022 - August 2022

- Extraction of speaker attributes from self-supervised representations.

Indiana University

Research Assistant

- Supervisor: D. Williamson

- Self-supervised representation learning for Speech Enhancement.

Remote, Austin, TX, USA

June 2021 - August 2021

August 2019 - May 2020

Spring 2023

Bloomington, IN, USA

August 2020 - May 2022

Machine Learning Engineer Inter (STT)

- Supervisor: J. Drexler Fox

- Curriculum Learning for high- and low-resource speech recognition.

Bloomington, IN, USA Indiana University

Research Assistant

- Supervisor: F. Tyers

- Low-resource speech recognition.

MTS, Artificial Intelligence Department Moscow, Russia January 2019 - July 2019 Computational Linguist

- Rule-based dialogue systems.

TEACHING

Indiana University Bloomington, IN, USA

Assosiate Instructor

• ENGR-E 511 Machine Learning for Signal Processing

Indiana University Bloomington, IN, USA Fall 2022, Fall 2023

Assosiate Instructor • ENGR-E 533 Deep Learning Systems

AWARDS

• Luddy Outstanding Research Award 2022

Nominated as a graduate student for outstanding research by the Dept. of Computer Science, Luddy school of Informatics, Computing and Engineering, Indiana University.

• Interspeech 2021 Best Student Paper Award 2021

SKILLS Extracurricular

• Expertise areas: Generative models, Text-to-speech, Speech Enhancement, Reinforcement Learning;

• **Programming Languages:** Python, C/C++;

• Frameworks: PyTorch, Tensorflow, Fairseg, ESPNet;

• Reviewer ICASSP 2023, 2024

• Mentor Google Summer of Code, Google Code-In 2018, 2019, 2020

• Student Participant: Google Summer of Code 2018

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