# Anastasia Kuznetsova

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## EDUCATION

Indiana University

Bloomington, IN, USA

Ph.D. in Computer Science and Computational Linguistics (Dual major) Advisors: M. Kim (Chair, IU Intelligent Systems Engineering),

F. Tyers (Chair, IU Linguistics), D. Williamson (OSU Computer Science)

2019-Current

Moscow, Russia

**NRU Higher School of Economics** 

M.A. in Computational Linguistics

Advisor: F.Tyers 2017–2019

Russian State University for the Humanities

B.A. in Social Anthropology

Moscow, Russia

2013 - 2017

## **PUBLICATIONS**

Conference papers

- [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.

#### PREPRINTS

[P1] Anastasia Kuznetsova, Aswin Sivaraman, Minje Kim, "The potential of Neural Speech Synthesis-based Data Augmentation for Personalized Speech Enhancement," (Sibmitted to ICASSP 2023).

#### **EMPLOYMENT**

Coqui.ai Remote, Willington, DE, USA

Research Intern, Text-to-Speech (TTS)

- Extraction of speaker attributes from self-supervised representations.

Indiana University

Bloomington, IN, USA

Research Assistant August 2020 – May 2022

June 2022 - August 2022

- Supervisor: D. Williamson
- Self-supervised representation learning for Speech Enhancement.

Rev.com Remote, Austin, TX, USA

Machine Learning Engineer Inter (STT)

- Supervisor: J. Drexler Fox

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

Indiana University Bloomington, IN, USA August 2019 - May 2020

Research Assistant

- Supervisor: F. Tyers

Low-resource speech recognition.

MTS, Artificial Intelligence Department

Computational Linguist

- Rule-based dialogue systems.

Moscow, Russia January 2019 - July 2019

Fall 2022

2022

June 2021 - August 2021

TEACHING

**Indiana University** Bloomington, IN, USA

Assosiate Instructor

• ENGR-E 533 Deep Learning Systems

AWARDS

• Luddy Outstanding Research Award 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, Self-Supervised Representation Learning;
- **Programming Languages:** Python, C/C++;
- Frameworks: PyTorch, Tensorflow, Fairseq, ESPNet;
- Reviewer ICASSP 2023
- Mentor Google Summer of Code, Google Code-In 2018, 2019, 2020
- Student Participant: Google Summer of Code 2018