

Georgi Shopov

Curriculum Vitae

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1113 Sofia, Bulgaria
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Research Interests

- Formal Languages and Automata Theory
- Data Structures and Algorithms
- Machine Learning

Education

- 2020– **Ph.D. in Computer Science**, *IICT, Bulgarian Academy of Sciences*
Thesis: [Finite Transducers for Representation of Language Models](#)
Supervisor: Prof. D.Sc. Stoyan Mihov
- 2017–2019 **M.Sc. in Computational Linguistics**, *FMI, Sofia University*
Thesis: [Construction of Character-Level \$f\$ -Transducers for Representation of Language Models](#)
Supervisor: Prof. D.Sc. Stoyan Mihov
- 2012–2017 **B.Sc. in Computer Science**, *FMI, Sofia University*

Professional Experience

- 2020– **Assistant Professor**, *IICT, Bulgarian Academy of Sciences*
- 2018–2019 **Programmer**, *IICT, Bulgarian Academy of Sciences*

Teaching Experience

Teaching Assistant, *FMI, Sofia University*

- 2020–2021 Applications of Finite Automata
- 2017–2019 Languages, Automata and Computability
- 2014 Object-Oriented Programming
- 2013 Introduction to Programming

Research Projects

- 2023 *A Study of a Concept for Automatic Dubbing of Documentaries*, Funded by Doli Media Studio Ltd.
- 2023 *Consultations for the Development of a Neural Network for Recognising Advertisements in Video Streams*, Funded by H-Tech Ltd.
- 2021–2023 *Scientific Consultation on the Subject “Development and Maintenance of a Platform as an Online Web-Based System for Language Resources Oriented Towards the Use of Literary Bulgarian as the Official Language” (BERON)*, Funded by the Ministry of Education and Science of Bulgaria
- 2021–2022 *Development of a Bulgarian Speech Synthesiser for the Needs of People with Visual Impairments*, Funded by the Union of the Blind in Bulgaria

2018–2022 *National Scientific Program “Electronic Health in Bulgaria” (NSP eHealth), Work Package 5: “Development of a Prototype for Computer-Aided Preparation of Medical Documentation (Voice Recorder for Bulgarian Language)”*, Funded by the Ministry of Education and Science of Bulgaria

Publications

- [1] Georgi Shopov and Stefan Gerdjikov.
[Consistent Bidirectional Language Modelling: Expressive Power and Representational Conciseness.](#)
In *Proceedings of the 2024 Conference on Empirical Methods in Natural Language Processing*, 2024.
- [2] Diana Geneva, Georgi Shopov and Stoyan Mihov.
[Algorithms for Probabilistic and Stochastic Subsequential Failure Transducers.](#)
In *International Journal of Foundations of Computer Science*, 34(8), 2023.
- [3] Diana Geneva, Georgi Shopov, Kostadin Garov, Maria Todorova, Stefan Gerdjikov and Stoyan Mihov.
[Accentor: An Explicit Lexical Stress Model for TTS Systems.](#)
In *Proceedings of the 24th Annual Conference of the International Speech Communication Association*, 2023.
- [4] Georgi Shopov, Stefan Gerdjikov and Stoyan Mihov.
[StreamSpeech: Low-Latency Neural Architecture for High-Quality On-Device Speech Synthesis.](#)
In *Proceedings of the 2023 IEEE International Conference on Acoustics, Speech and Signal Processing*, 2023.
- [5] Diana Geneva, Georgi Shopov and Stoyan Mihov.
[Algorithms for Probabilistic and Stochastic Subsequential Failure Transducers.](#)
In *Proceedings of the 25th International Conference on Implementation and Application of Automata*, 2021.
- [6] Diana Geneva, Georgi Shopov and Stoyan Mihov.
[Composition and Weight Pushing of Monotonic Subsequential Failure Transducers Representing Probabilistic Models.](#)
In *arXiv:2003.09364 [cs.FL]*, 2020.
- [7] Diana Geneva, Georgi Shopov and Stoyan Mihov.
[Building an ASR Corpus Based on Bulgarian Parliament Speeches.](#)
In *Proceedings of the 7th International Conference on Statistical Language and Speech Processing*, 2019.
- [8] Diana Geneva and Georgi Shopov.
[Towards Accurate Text Verbalization for ASR Based on Audio Alignment.](#)
In *Proceedings of the 6th Student Research Workshop Associated with the 12th International Conference on Recent Advances in Natural Language Processing*, 2019.