# Victoria (Viktoriia\*) Firsanova

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Saint Petersburg, Russia (born in Tula, Tula Oblast, Russia)
\*In papers and everywhere else, I spell my name as "Victoria", but in official documents it is spelled as "Viktoriia"

### Research interests

Conversational Artificial Intelligence, Machine Translation, Natural Language Understanding, Natural Language Generation, Transfer Learning

## **Projects**

### 2020 - Present

### Autism Spectrum Disorder Question Answering (ASD-QA)

The dataset for Closed-domain Question Answering in Russian include question-answer pairs about Autism Spectrum Disorder and inclusive education. The dataset can be used to build dialogue systems such as chatbots and extractive question answering models. Project web site: asd-qa.org

#### 2022 - Present

### **Empathic Machine Processors for Inclusion (EMPI)**

The development of a mobile app for supporting the inclusion of people with Autism Spectrum Disorder and their families.

Source code, layouts, supporting material: GitHub

### 2023 - Present

### The Black Box podcast

Podcast about Artificial Intelligence and Natural Language Processing and series of popular science lectures in Russian.

Public page: VK

### Education

### 2022 - Present

### Saint Petersburg State University - Saint Petersburg, Russia

PhD in Philology; Theoretical, Applied and Comparative linguistics

Dissertation: Neural Transfer Learning for Natural Language Processing in for Tasks in

Social Sector

Dissertation Advisor: Mitrofanova O. A., PhD, Associate Professor.

2020 – 2022	Saint Petersburg State University – Saint Petersburg, Russia MA in Philology: Computer and Applied Linguistics Concentrations: Machine Learning, Linguistics Thesis: Approaches to Building a Dialogue System on Autism Spectrum Disorder with Transformer Architecture Thesis Advisor: Mitrenina O. V., PhD, Associate Professor.
2016 - 2020	Higher School of Economics – Saint Petersburg, Russia BA in Philology Concentrations: Linguistics Thesis: Classification of Messages of Drug Addicts in Social Networks Using Neural Networks Thesis Advisor: Mitrenina O. V., PhD, Associate Professor.
	Professional Development
Apr 2023	Coursera Project Network – Coursera, Online Course "Get Started with Figma"
Jan 2022	TU Berlin Winter University – TU Berlin, Online Course "Introduction to Artificial Intelligence"
Dec 2021	<b>Professional Development Courses</b> – ITMO University, Saint Petersburg, Russia Course "Commercialization of Smart Digital Objects"
Oct 2021	<b>Tomsk State University, The Vladimir Potanin Foundation</b> – Online Course "Stress Management"
Oct 2021	<b>Tomsk State University, The Vladimir Potanin Foundation</b> – Online Course "Conflict Management"
Sep 2021	<b>Tomsk State University, The Vladimir Potanin Foundation</b> – Online Course "Design Thinking"
Jul 2021	The Vladimir Potanin Foundation Summer School – Online Tracks "Pro-Bono", "Agile", "Networking"
Apr 2021	<b>DeepLearning.AI</b> – Coursera, Online Course "Natural Language Processing with Attention Models"

University of California, Santa Cruz – Coursera, Online

Course "Bayesian Statistics: From Concept to Data Analysis"

Mar 2021

Jan 2021	<b>Moscow Institute of Physics and Technology, Huawei</b> – Stepik, Online Course "Huawei: Natural Language Processing"
Aug 2020	Summer School of Machine Learning (SMILES) – Skoltech, Online
Jul 2020	IBM – Coursera, Online Course "IBM: Introduction to Artificial Intelligence (AI)"
Sep 2019	Fall School for Formal Syntax and Formal Semantics (3-FS) – Higher School of Economics, Moscow, Russia
	Honors and scholarships
Dec, 2022	Literature Prize Nominee  Author of a short novel
Dec, 2022	Literature Open-Call Participant  Author of short read stories
Oct, 2021	Winner of the Vladimir Potanin Foundation Competition "Practices of Personal Philanthropy and Altruism" (Vladimir Potanin Foundation)  The project "The Development of the Informational Chat-bot about Autism Spectrum Disorder" was supported by funding provided by the Competition Organizers.
Aug, 2021	Winner of the Vladimir Potanin Foundation Summer School Competition Vladimir Potanin Foundation Summer School Competition (Vladimir Potanin Foundation)  The charity project "Accompanied Growing up for Mentally Disabled People" launched by an NGO.
Feb, 2020	The Vladimir Potanin Foundation Scholarship (Vladimir Potanin Foundation)
Dec, 2020	ODS Awards (Open Data Science) Winner in two nominations: Best Project, Best Organizer.
	Publications
April, 2023	<b>Towards Building a Mobile App for People on the Spectrum</b> Firsanova, V.
	WWW '23 Companion: Companion Proceedings of the ACM Web Conference 2023.
May, 2022	A Quick Guide to Low-Resource NLP
	Firsanova, V.  MLOps Community. May, 2022, online.
	14110ps Community, 1414 y, 2022, Online.

### Feb, 2022 Question Answering Systems and Inclusion: Pros and Cons

Firsanova, V.

Internet and Modern Society 2021: Proceedings of the International Conference "Internet and Modern Society" (IMS-2021), St. Petersburg, Russia 23-26 June 2021. (CEUR Workshop Proceedings; Vol. 3090). RWTH Aahen University. http://ceur-ws.org/Vol-3090/.

## Jan, 2022 Transformer Models for Question Answering on Autism Spectrum Disorder QA Dataset

Firsanova, V.

In D. A. Alexandrov, A. V. Chugunov, Y. Kabanov, O. Koltsova, I. Musabirov, S. Pashakhin, A. V. Boukhanovsky, & A. V. Chugunov (Red.), Digital Transformation and Global Society - 6th International Conference, DTGS 2021, Revised Selected Papers: 6th International Conference, DTGS 2021, St. Petersburg, Russia, June 23–25, 2021 (pp. 122-133). (Communications in Computer and Information Science; Vol 1503 CCIS). Springer Nature. DOI: 10.1007/978-3-030-93715-7-9.

# Dec, 2021 **Two Approaches to Building Dialogue Systems for People on the Spectrum** Firsanova, V.

Conference on Neural Information Processing Systems 2021. Data-Centric AI Workshop.

# Dec, 2021 The Advantages of Human Evaluation of Sociomedical Question Answering Systems

Firsanova, V.

International Journal of Open Information Technologies, 9(12), 53-59.

# Jun, 2021 The Description of the Autism Spectrum Disorder Question Answering Dataset

Firsanova, V.

Dialogue 2021 Student Session.

# Jan, 2021 Supporting the Inclusion of People with Asperger Syndrome: Building a Customizable Chatbot with Transfer Learning

Firsanova, V.

AINL: Artificial Intelligence and Natural Language Conference. Workshop on Human-AI Interaction. 7.-9.10.2020, online.

# Jan, 2021 Automatic Recognition of Messages from Virtual Communities of Drug Addicts

Firsanova, V.

*Journal of applied linguistics and lexicography, 2 (1), 16-27.* 

### Jul, 2020 The Functioning of Drug Addict's Jargon in Social Networks

Firsanova, V.

Studia Slavica XVIII. — 04.07.2020. — P. 152—164. ISSN 2674-2160.

## Jul, 2020 The Classification of Drug Addicts' Messages in Social Networks with Neural

Networks

Firsanova, V.

Dialogue 2020 Student Session.

### Conferences

### May 2023 **ACM Web Conference**

PhD Symposium

Towards Building a Mobile App for People on the Spectrum

### Apr 2023 AINL: Artificial Intelligence and Natural Language Conference

Main track

What Do Text-to-Image Models Know about the Languages of the World?

## Mar 2023 51st L.A. Verbitskaya International Scientific Philological Conference (IPC

2023)

Applied and computational linguistics

The Development of a Chatbot about Autism Spectrum Disorders

### Mar 2023 **OpenTalks.AI 2023**

Poster Presentation

The Development of an AI-Powered Chatbot for Inclusive Education

### Dec 2021 Conference on Neural Information Processing Systems

Data-Centric AI Workshop

Two Approaches to Building Dialogue Systems for People on the Spectrum

### Jul 2021 TRITON 2021: Forum for recent advances in technologies for translation and

interpreting and more

**Brainstorming Session** 

Karelian Machine Translation

### Jun 2021 Internet and Modern Society - IMS

International Workshop "Computational Linguistics"

Question Answering Systems and Inclusion: Pros and Cons

# Jun 2021 6th International Conference Digital Transformation & Global Society (DTGS 2021)

Communications in Computer and Information Science

Transformer Models for Question Answering on Autism Spectrum Disorder QA Dataset

# Jun 2021 **Dialogue International Conference on Computational Linguistics and Intel- lectual Technologies**

Student session

Autism Spectrum Disorder Question Answering Dataset

### Oct 2020 AINL: Artificial Intelligence and Natural Language Conference 2020

Human-AI Interaction Workshop

Supporting the Inclusion of People with Asperger Syndrome: Building a Customizable Chatbot with Transfer Learning

## Jun 2020 Dialogue International Conference on Computational Linguistics and Intellectual Technologies

Student session

The classification of drug addicts' messages in social networks with neural networks

### Feb 2019 XX International Conference of Young Slavists

Language. Text. Society

The Functioning of Drug Addict's Slang in Social Networks

## Industry experience

### Autumn 2021 Speech Technology Center (Internship) – Saint Petersburg, Russia

Project Management Department, Dialogue System Integration

### Talks and tutorials

### Apr 2023 Why a Philologist Needs Neural etworks?

Saint Peters burg State University, International Conference of Philology Students, Plenary Session, program

## Apr 2023 EMPI: Artificial Intelligence (AI) for People with Autism Spectrum Disorder (ASD)

Normal'noe Mesto (Charity Organization), Saint Petersburg, Russia, program

### Aug 2022 My First Crowdsourcing

Lecture on Information Technology, OLYMP Union, ITMO University, Saint Petersburg, Russia, available on YouTube

Oct 2021	Transformers  Seminar on Computational Linguistics, Saint Petersburg State University, Saint Petersburg, Russia, available on YouTube
Jun 2021	Evolution of Chat-bots  Lecture on Computational Linguistics, OLYMP Union, ITMO University, Saint Petersburg, Russia, available on YouTube
	Mentorship and service
Nov 2022 – Dec 2022	Corpora 2023 International Conference at St. Petersburg State University (Organizing Committee manager) Translation, mailing, typesetting, editing, technical support.
Apr 2022	XXV Open Conference for Philology Students at St. Petersburg State University (Co-organizer of the section "Psycholinguistics")  Conference holding, review and selection of applications.
Feb 2022 – Jun 2022	Non-governmental organization for children and parents of children with mental disability, Irkutsk, Russia (Website Developer) Website development.
Sep 2021 – Jun 2022	Non-governmental organization of care for people with mental disability, Irkutsk, Russia (Project Manager)  Development and maintenance of a project to update the organization's website.
Jan 2021 – Jul 2021	Corpora 2021 International Conference at St. Petersburg State University (Organizing Committee manager) Translation, mailing, typesetting, editing, technical support.
Jan 2021 – Jul 2021	Internet and Modern Society (IMS-2021) International Conference at ITMO University (Organizing Committee manager) Translation.
Sep 2020 – Dec 2020	OLYMP Union at ITMO University (Active member and NLP Discussion Club organizer) Creator and organizer of a student discussion club.

Technical skills

## Programming and markup languages

Proficient in: Python, HTML, CSS, XML

Familiar with: JavaScript

### **Software**

LATEX, Git, Jupiter

### Languages

English (IELTS Certificate 7.5 C1 Advanced), German (Upper-Intermediate), Spanish (Intermediate), French (Intermediate), Italian (Elementary), Russian (Native)

## Other interests

Ancient languages, computer vision, charity, ecology, fine arts.