

Sergei Voloboev

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Spoken Languages: English – Advanced (IELTS 7.0), Russian – Native

EDUCATION

- Technical University of Munich** Munich, Germany
Master of Science in Data Engineering and Analytics Oct. 2021 - Sep. 2023 (Present)
- Perm State University** Perm, Russia
Bachelor of Applied Mathematics and Computer Science, 5/5 Sep. 2017 - Jul. 2021
 - Thesis:** Ontology-driven framework to create intelligent assistants choosing machine learning algorithms

EXPERIENCE

- Laboratory of Code** Perm, Russia
Data Engineer May 2020 - Jul. 2021
 - Python PyTorch Apache Airflow Docker JupyterHub Kubernetes
 - Built an audio denoiser by training U-Net on [2,3 TB russian speech dataset](#) [Open STT](#).
 - Established a distributed secure infrastructure for data science experiments by setting up Kubernetes cluster with distributed Airflow and JupyterHub.
- Simpl** Perm, Russia
Junior SWE May 2019 - Sep. 2019
 - PySpark Python Alluxio Hadoop Docker C#
 - Improved the speed of a data processing solution for oil production company by 3 times with in-memory distributed computing.
 - Set up Apache Spark cluster on office computers using Docker and Docker Swarm.

VOLUNTEER TEACHING EXPERIENCE

- Held lectures and seminars on Python and machine learning for freshmen students of [PSU](#). Sep. 2020 - Jul. 2021

PROJECTS

- HZB ML Hackathon 2021** Berlin, Germany
Sep. 2021
 - Python Scipy Pytorch HDBSCAN Autoencoders Matplotlib Pandas
 - Achieved 0.87 [V-measure](#) on clustering holography images from magnetic domains for labels, produced by group of physicists for 4 years period with usage of HDBSCAN clustering algorithm over VQ-VAE latent space.
 - Spotted a pattern in magnetic fields via visual analysis of dataset's statistics, the recognition of which improved [V-measure](#) by 0.2.
- Analytical platform with NLP intelligent assistance [Bachelor thesis]** Perm, Russia
Jan. 2020 - Jul. 2021
 - Python Flask FastAPI Docker PyTorch HuggingFace Transformers Ontologies PostgreSQL JQuery
 - Built a platform which provides intelligent assistance for choosing ML algorithms from multiple environments (Python, Weka, R), considering user's preferences and the metadata of the processed dataset.
 - Developed an algorithm for the system's smart search and chat bot both with 0.9 F-score that uses ontologies and sentence BERT.
- Distributed stocks portfolio application** Perm, Russia
Dec. 2020
 - Python gRPC PostgreSQL Redis RabbitMQ Docker Docker swarm Nginx AWS
 - Designed the architecture of the application for the final team project of a distributed systems course, which required usage of multiple languages and communication technologies, network reliability and fault tolerance.
 - Deployed the system on 5 AWS instances and tested its overall reliability.

ACHIEVEMENTS

- ML2R Autumn School 2021, [Compactness award](#) (Technical University of Dortmund) Dortmund, Germany
- RuCode Festival, [AI track 2021 prize-winner](#) (Moscow Institute of Physics and Technology) Moscow, Russia
- "I am professional" All-Russian Olympiad, [AI track 2020 winner](#); [2021 prize-winner](#) (Yandex) Moscow, Russia
- ICPC Northern Eurasia Finals Honorable Mentions. [2018-2019](#); [2019-2020](#) St. Petersburg, Russia
- Xsolla Hackathon 2019, [1st place](#) Perm, Russia

PROGRAMMING SKILLS

- Languages:** (*advanced*) Python, C++, C#; (*basics*) JavaScript, Java, Kotlin, Go
- Technologies:** (*advanced*) Docker (Swarm), PostgreSQL; (*basics*) Kubernetes, Git, AWS, Google Cloud, Linux, Tableau
- Knowledge:** (*advanced*) Algorithms, Data Structures, Machine Learning, NLP; (*basics*) Cloud Computing, Software Design