Sergei Voloboev

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Linkedin: sergei-voloboev-3138b3196 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)

Email: voloboeff201087@gmail.com

Perm State University

Perm, Russia

Bachelor of Applied Mathematics and Computer Science, GPA 5.0/5.0

Sep. 2017 - Jul. 2021

o Thesis: Ontology-driven framework to create intelligent assistants choosing machine learning algorithms

EXPERIENCE

Data Engineer

Laboratory of Code

Perm, Russia

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.

Perm State University

Perm, Russia

Tutor in AI lab Python Jupyter Notebook Numpy Pandas Matplotlib Plotly PyTorch

• Held lectures and seminars on Python and machine learning for freshmen students.

Simpl

Perm, Russia

Junior SWE (PySpark) (Python) (Alluxio) (Hadoop) (Docker) (C# May 2019 - Sep. 2019

Sep. 2020 - Jul. 2021

- 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.

**PROJECTS** 

# **HZB ML Hackathon 2021**

Berlin, Germany

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.

# DCHelper [Bachelor thesis]

Perm, Russia

Oct. 2021

Python | Flask | FastAPI | Docker | PyTorch | HuggingFace Transformers | Ontologies | PostgreSQL | JQuery

Jan. 2020 - Jul. 2021

- 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.
- o Developed an algorithm for the system's smart search and chat bot both with 0.9 F-score that uses ontologies and sentence BERT.

Stonxygen

Perm, Russia Dec. 2020

- Python (gRPC) (PostgreSQL) (Redis) (RabbitMQ) (Docker) (Docker swarm) (Nginx) (AWS
  - o Designed the architecture of a stocks portfolio 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.
  - o Deployed the system on 5 AWS instances and tested its overall reliability.

### Achievements

- 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), PostgeSQL; (basics) Kubernetes, Git, AWS, Google Cloud, Heroku, Tableau
- Knowledge: (advanced) Algorithms, Data Structures, Machine Learning, NLP; (basics) Cloud Computing, Software Design