

You can reach me via:

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Core skills

Data Analysis (Python 3, SQL)

Scientific/Technical and general writing

Team management

Presenting

Languages

Russian (Native)

English (C2)

German (B1)

Stack

Programming languages:
Python 3, SQL

Libraries: Pandas, Biopython, sklearn, numpy, seaborn, matplotlib

Tools (General): Git, Trello

Methodologies: Scrum, Agile

Maria Zelenova

PhD in biology, Senior Researcher at Laboratory of Molecular Genetics and Brain Cytogenomics – Mental Health Research Center
Russian Federation

General Information

My primary interest in IT is data analysis: filtering, processing, analyzing different types of information. Since I mostly have experience with biological and medical data, I would like to deepen my knowledge and get data analysis experience in another field. I am open to a flexible hours, hybrid or remote position.

Recent publications reflecting my experience with data analysis in biology :

- Maria Zelenova, Anna Ivanova, Semyon Semyonov, Yuriy Gankin, Analysis of 329,942 SARS-CoV-2 records retrieved from GISAID database, Computers in Biology and Medicine, 2021, 104981.
- Zelenova M.A. et al. Laundering CNV data for candidate process prioritization in brain disorders // Molecular Cytogenetics. – 2019. – T. 12. – №. 1. – C. 1-6.

Experience

Mental Health Research Center, Moscow, Russia

2011 - present; current position: senior researcher

Main research direction: bioinformatic analysis of different genetic data obtained from patients with brain diseases (e.g. intellectual disability, autism, epilepsy)

Responsibilities:

- Candidate gene and pathway analysis
- Bioinformatic analysis of SNP array and sequencing data
- Scientific and technical writing (articles, reviews, grant applications, reports)
- Presenting at conferences
- International and local communication
- Wet biology (microscopy, probes and slides preparation)

Education

Belgorod State University
PhD, Genetics (2017)

MSUPE
Specialist (equals to
MS), Clinical Psychology
(2013)

Certifications

Python Programming (various)

Experimental Genome Science

Genomic Data Science with
Galaxy

Introduction to Data Science
and Machine Learning

Hackathons

Year: 2021
Organizer: Glowbyte
Status: Winners
Case: Improve credit scoring
system
Stack: SQL, Python 3, DWH,
Marketing and banking
techniques
Solution: [https://github.com/
mariazelenova/
Glowbyte_Hackathon_2021](https://github.com/mariazelenova/Glowbyte_Hackathon_2021)

Year: 2022
Organizer: Molnet and others
Status: Participants
Case: Database programming
Stack: SQLite, Python 3
Solution: [https://github.com/
mariazelenova/2022_Molnet_
Hackathon](https://github.com/mariazelenova/2022_Molnet_Hackathon)

Quantori

2020-2021; position: bioinformatician

Main project: analysis of 329,942 SARS-CoV-2 records obtained from GISAID database. The records include FASTA files containing SARS-CoV-2 genomes and the accompanying data, such as patients' age and gender. The project goal was publishing the results as an academic article.

Responsibilities:

- Experiment design
- Scientific literature analysis
- Programming (Python 3 using Pandas, Numpy, Matplotlib)
- Scientific writing

Achievements:

- Developed an algorithm for candidate pathway prioritization in children with abnormal brain functioning
- Defended a PhD thesis
- Authored 100+ research publications, including abstracts, articles, and book chapters
- Was featured as a speaker/presenter at multiple conferences, including European Society of Human Genetics conferences