# Yuri Temiraev

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## SUMMARY

Aspiring Data Analyst with 4+ years of programming experience (research & pet projects). BSc in Physics (2020), MSc in Bioinformatics (2022, *cum laude*). Researcher in astrophysics for 3 years. Completed numerous projects covering data analysis, web technologies, ML & Deep Learning, and more.

## SKILLS

Languages Python, R, MySQL, UML

Libraries numpy, pandas, scipy, sklearn, pytorch, matplotlib, plotly

**Frameworks** Docker, Airflow **Tools** Git, Jupyter, Conda

### **EDUCATION**

2022 Alferov University Saint Petersburg, Russia

Master of Bioinformatics

2020 **Peter the Great Polytechnic University** Saint Petersburg, Russia

Bachelor of Physics

### WORK EXPERIENCE

Ioffe Institute | Laboratory for experimental astrophysics

Nov 2020 - Dec 2023

#### Research Engineer

- Applied EM algorithm using mixtures of skewed distributions for event clusterization (paper in prep.)
- Implemented an ETL pipeline aggregating external data parsing and existing MySQL data to refine event coordinates
- Developed a CLI tool to process detector events in bulk using Python
- Reported new scientific findings as part of the Institute's astrophysics journal club

## **PROJECTS**

Gevo 🗹 | Python, networkx, numpy

Python OOP implementation of Markov Process simulation on graphs.

Grbml 🗹 | Python, R, rpy2, pandas, numpy, plotly, matplotlib

Application of Machine Learning for astrophysics event clusterization done by integrating Python & R via rpy2.

Nwport [ | Python, Jupyter, numpy, networkx, matplotlib

Researched model networks & human brain neural networks by exploring certain matrix properties of graphs.

- Qualified for International Summer School on Mathematics & Neuroscience (50 participants)
- Collaborated in a team of 5 people overseen by a project manager to meet tight deadlines
- Led the project presentation as a speaker to an audience of diverse professional backgrounds

## **PUBLICATIONS**

Svinkin, Temiraev, et al. (Dec. 2020). "Spectral evolution of long gamma-ray bursts observed with Konus-Wind". In: *Journal of Physics Conference Series*. Vol. 1697. doi: 10.1088/1742-6596/1697/1/012003.

Burns, Svinkin, et al. (Mar. 2023). "GRB 221009A: The BOAT". In: *The Astrophysical Journal Letters* 946.1, p. L31. doi: 10.3847/2041-8213/acc39c.

Zhukov, Kipyatkova, and Temiraev (Dec. 2023). "Network models of innovation diffusion". In: *Tomsk State University Journal of Control and Computer Science* 65.