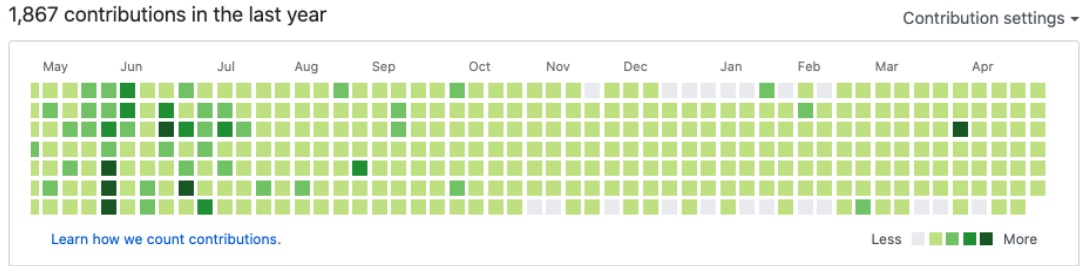


ALEXANDER MYLTSEV

email: alex@myltsev.com | skype: alexander.myltsev | github: [alexander-myltsev](https://github.com/alexander-myltsev)

CV update: April, 2020 | <https://myltsev.com/cv>



Laboratory of Methods of Big Data Analysis, Higher School of Economics *Machine Learning Engineer (Remote Contractor)*

August 2019 – present

<https://cs.hse.ru/lambda>

- developing state of the art model to predict time series
- responsible to deliver the results to the end user
- the project is supported by [Yandex](#) grant

Cifrum – Assets Portfolio Analysis Toolkit

June 2018 – August 2019

Full-stack Core Developer (Remote Contractor)

<https://github.com/cifrum-io/cifrum>

- taught myself personal finance based on **modern portfolio theory**
- wrote software **from scratch in team** of 2 professional financial consultants to automate portfolio analysis that **helps hundreds of investors**
- developed **crawler** that fetches financial information (stocks, ETFs, currencies, etc.) in **Python3**
- shipped standalone **open-sourced library** named *yapo* (**tox/poetry/pytest/Python3**) adopted for **iPython**
- developed the API: **GraphQL/REST API** in **Flask/Python3** and **PlayFramework/Scala**
- developed the frontend in **Angular7/Typescript**

Global Names Architecture (<http://globalnames.org>)

June 2015 – June 2018

Full-stack Search Engine Developer (Remote)

Natural History Survey, University of Illinois, USA

- taught myself basics of biodiversity classification to help **thousands of researchers throughout the World** to register, find, index, check and organize biological scientific names
- in team with the biodiversity scientist rewrote **PEG Parser** in **Scala/parboiled2** for scientific names that works **100+** times faster than previous version, plus added more parsing features that none did before
- assembled **GraphQL API** in **Scala/Finagle/Sangria/PostgreSQL** that parses and finds sophisticated information for **1,000 names within 1 second** that is **50x** faster than previous version
- adopted **Levenshtein automaton** to fuzzy search through scientific names in Latin. It handles the query with 2 mistakes through **7+ millions names within 0.5 second**
- in team with the lab administrator helped to deploy the **Docker-ized App** in **Kubernetes** that improved regular Biodiversity Heritage Library indexing **from 40 days to 12 hours**
- co-authored the paper: “gnparser – a powerful parser for scientific names based on parsing expression grammars”
- wrote the frontend in **Angular/TypeScript**
- helped to complete successfully the **National Science Foundation grant** (NSF DBI-1356347)

EDUCATION

Moscow Institute of Physics and Technology (MIPT), Moscow, Russia, 2008–2010
Department of Control and Applied Mathematics, subdepartment of Informatics (CIS)

*M.Sc. in **Mathematics and Computer Science**, GPA: 5.0/5.0*

Thesis: Embedding Domain Specific Language in F# for Hybrid System Control

Advisor: [Andrey Ustyuzhanin](#), Ph.D. in CS, Associate Professor at MIPT, Head of joint CERN-Yandex Research & Education programs

The Long CV: <http://myltsev.com/cv-long>