Maxim Gushchin, PhD
Python Back-End Developer

✉ magusch@gmail.com
◎ telegram.me/magusch
in linkedin.com/in/magusch
○ github.com/magusch

I am an accomplished Python Back-End Developer with over 6 years of programming experience, focusing on top-tier code quality, streamlined data processing, and effective project management. My portfolio encompasses web application development using Django, Flask, and even Ruby on Rails. I have contributed to various projects in support of scientific research at ITMO University, including work involving light transmission calculations, image intensity analysis, and an automated city event tracking system.

EXPERIENCE

PYTHON BACK-END DEVELOPER
St Petersburg · Russia · Remote

DavaiSNami — Jun **2020** - **Present**

Created a project that consists of a set of Python-based services, collectively automating event parsing, publication, and management in our city, resulting in a **90%** reduction in the time required on channel:
- A service automating the process of scraping and filtering from 2000 events to 100 events per day according to a specified data structure, with the ability to easily add new websites.
- A Django-based service for managing publications through an admin panel and providing an API for retrieval and processing of all information.
- A service for automated event publication on various platforms and social media.
- A service in the form of a Telegram bot for event search and reminders.

Django REST Framework · Nginx · Docker · Django · Git · API Development · PostgreSQL · Bootstrap · OOP · System Architecture Design · JavaScript

RUBY DEVELOPER
United States · Remote

Locality Labs — May **2021** - Oct **2023**

- Code contributions in Ruby and Ruby on Rails.
  - Created reusable modules and classes.
  - Participated in news platform development.
- Analyzed data in MySQL (100'000-5'000'000 records).
- Reduced the average workload per task by **20%** through team management and code reviews.
- Organized and spearheaded data collection team:
  - Analyzed 60+ websites (avg. 10'000 records, 4 relationships);
  - Implemented unified data collection structure;
  - Assigned tasks to diverse developers;
  - Reduced development time within the team by **30%** through improved Ruby code workflow (modules, containers, patterns, logging).

Ruby · Ruby on Rails · Docker · Git · ActiveRecord · MySQL · DevOps · RSpec · Project Management · PostgreSQL · Big Data · Analytics · JavaScript · OOP

SCIENTIFIC RESEARCHER AND PYTHON DEVELOPER
St Petersburg · Russia · Hybrid

ITMO University — Sep **2016** - Aug **2022**

- Developed a web application that remains an integral tool within the laboratory, enabling precise calculations of light transmission through complex multilayer systems.
- Designed a web application for experimental analysis of structures with chemiluminescent elements and image-based response determination.
- Conducted various experiments in the fields of physics and chemistry.
- Collaborated closely with diverse scientific teams to support shared research objectives.

Python · Mathematical Modeling · NumPy · Flask · Statistical Data Analysis · Nanotechnology · Quantitative Research · Bootstrap · Plasmonics

PYTHON BACK-END DEVELOPER
United States · Remote

Crediblock
Nov **2020** - Jun **2021**

- Developed and maintained back-end web applications using Python as part of the Crediblock.com portfolio of disruptive FinTech services, encompassing Information Systems & Technology, Software for Markets.
- Collaborated on projects involving the integration of front-end technologies, including jQuery, to create seamless user experiences and enhance application functionality.
- Designed and implemented robust APIs to facilitate data exchange and interoperability.

Python · Flask · Nginx · JavaScript · API Development · Virtual Private Server (VPS) · Django · DevOps · PostgreSQL

RUBY DEVELOPER
St Petersburg · Russia · Remote

Fides
Jul **2020** - Nov **2020**

Ruby on Rails · RSpec · Ruby · Git · PostgreSQL

RUBY DEVELOPER
Brazil · Remote

ARQUIVADO
Aug **2019** - May **2020**

Test Automation · MongoDB · PostgreSQL · Selenium · Telegram Api

EDUCATION

ITMO University, St. Petersburg, Russia 2018 - 2022, **– PHD**
ITMO University, St. Petersburg, Russia 2016 - 2018, **- Master**
NRU of Electronic Technology (MIET), Zelenograd – Russia 2012 - 2016, **– Bachelor**

PROJECTS

DavaiSNami

- Developed a project focused on managing event postings in a Telegram channel, which encompassed the following components:
- Web scraping and event parsing from various websites
- Implementation of management processes through Django API services
- Posting events to the channel
- Administration of events using a dedicated Django admin service
- Scheduled tasks for posting, parsing, and research of new events.

Skills: *Django REST Framework · API Development · Docker · Django · JavaScript · Data Analysis · Project Management · Python · Telegram API*

 github.com/dsn_django · github.com/escraper · github.com/DavaiSNami_bot

Layer Transmittance

Developed a web application for calculating the transmission of light through various thin multilayer structures. The application, built with Flask, employed mathematical models, recursive methods, and libraries such as NumPy, Pandas, and Matplotlib. It was designed to address specific research needs in the ITMO University laboratory and continues to be in use.

Skills: *Python · Mathematical Modeling · NumPy · Pandas · Flask · Data Analysis · Quantitative Research · Nanotechnology · Statistical Data Analysis · Plasmonics*

 github.com/LayerTransmittance

ChemiAnalysis 1.0

The program "ChemiAnalysis 1.0" is a supplement to the Product "Chemiluminescent Sensor". The program allows to process chemiluminescent image and present the result in the form of a two-dimensional graph with profiles of chemiluminescence intensity of the reference sample (Channel 1) and the tested sample (Channel 2).
The functional feature of the program is a fast and accurate analysis for the presence of excessive concentration of reactive oxygen species in the biological sample under study.

Skills: *Python · Mathematical Modeling · NumPy · Flask · Bootstrap · Plasmonics*

github.com/ProfileIntensityFlask