

Konstantin Litvin

Python Developer

Contact

konstantinlitvin@pm.me

(+7) 911-150-0475

[KonstantinLitvin](#)

konstantinlitvin.github.io

St.-Petersburg, Russia

Skills

Programming:

Python, Flask, websockets, asyncio, aiohttp, Cython

Data Engineering:

PostgreSQL, SQLite, pandas, ArcticDb

Data Science & Visualization:

Dash, matplotlib

Tools & Infrastructure:

Git, Bash, Linux, Docker

Languages

Russian (native)

English (B1)

Experience

Python developer | Freelance | 03/2022 - Present

Visualization Tool for Cadastral Register Documents

Developed a GUI tool to parse cadastral XML documents, enabling dynamic object visibility control and significantly enhancing client efficiency.

pandas

matplotlib

ttkwidgets

pyinstaller

Bic

Developed a daily data fetching service from the mpstats API, implementing robust API requests, data processing, and error handling, with seamless integration into a PostgreSQL database.

pandas

PostgreSQL

mpstats api

Optimal delivery route calculation

Developed a GUI program to process Excel files with shop coordinates and territory data, allocating shops within territories and calculating optimal delivery routes from courier locations.

pandas

tkinter

geopy

pyinstaller

Python developer | Freelance | Upwork | 11/2019 - 10/2022

Completed around 10 projects as a Python developer, specializing in financial applications.

Trading volume anomalies detection

Developed a Twitter service for real-time detection of trading volume anomalies, focusing on sudden shifts in statistical properties and unexpected appearance of significant new price levels. Utilized websockets library for the live capture and processing of order book data and trading history.

Websockets

pandas

asyncio

SQLite

twitter api

Opium Protocol

Worked on developing a Hummingbot connector using Python. Responsibilities included implementing and testing the necessary functionalities. Collaborated with the team to troubleshoot and debug issues.

asyncio

Cython

aiohttp

Q21 Capital

Developed an Order Execution and Management System that divides a position into randomly-sized smaller orders, executing them over a specific period across various exchanges for optimal execution.

aiohttp

AWS (lambda

EC2

ECR

DynamoDb)

Docker

Additional Projects

Throughout various other smaller projects, I acquired skills and experience in the following tools and technologies.

pandas

pytest

matplotlib

flask

ArcticDb

SQLite

backtrader

Dash

TradingView pinescript

Software Engineer | Planemo Capital | 01/2018 - 10/2019

Collaborated with a team to develop an automated trading system by applying diverse strategies such as mean reversion (cross-exchange arbitrage) and trend-following strategies using various types of moving averages.

Applied GARCH for volatility prediction, informing volatility targeting and optimizing position sizing strategies.

Computed key trading risk-performance metrics including the Sharpe Ratio, Sortino Ratio, and Ulcer Index.

Conducted backtesting with statistical methods to validate trading strategies and mitigate overfitting.

talib

matplotlib

pandas

scikit-learn

C# Developer | Freelance project | 11/2013 - 02/2014

Collaborated with a researcher from the Faculty of Information Measurement and Biotechnical Systems on a university thesis project. Designed and developed an online questionnaire to estimate patients' quality of life. Automated processes provided projections on the progression of specific diseases.

R (ANOVA)

Entity Framework

MySQL

ASP.NET

HTML

CSS

Software Engineer | Vsevolozhskiy Plant of Aluminum Alloys LLC | 11/2012 - 10/2017

Worked as part of a team developing an embedded system and software solution for sorting scrap metals and separating minerals using x-rays.

Responsibilities included:

Software architectural design.

Software development using C# .NET.

GUI design using WinForms.

Collaboration in the design of the embedded system.

Coding software.

Programming Atmel microcontrollers with C.

Technologies: OOP, C#, WinForms, Embedded C.

OOP

C#

WinForms

Embedded C

Engineering Intern, Faculty of Electronics | Saint Petersburg Electrotechnical University | 05/2012 - 07/2012

Participated in developing a stomatology 3D scanner, which included studying the machine's vision system and calculating distances using cameras.

C++

OpenCV

Engineering Intern | Senergys LTD | 01/2011 - 06/2011

Developed an electronic timing system for dog races (dog agility), utilizing a microcontroller and infrared detectors.

Built a prototype and designed the circuit diagram.

Programmed Atmel microcontrollers using Assembler and C.

Assembler

C

Engineering Intern | Senergys LTD | 05/2010 - 09/2010

Contributed to the development and debugging of a refrigeration system for a microwave processing system using PLC and HMI, and took part in programming PLC and HMI.

PLC

HMI

Education

Saint Petersburg Academic University | 09/2015 - 07/2016

Retraining program in Information Technologies.

Saint Petersburg Electrotechnical University "LETI" | 09/2011 - 06/2013

Master's Degree in Electronics and Nanoelectronics (Microwave and Telecommunication Electronics).

Thesis: Development of Supervisory Control and Data Acquisition Systems for Fast Sorting Machines.

Saint Petersburg Electrotechnical University "LETI" | 09/2007 - 06/2011

BS in Engineering and Technology (Electronics and Microelectronics).

Projects

**Backend developer | Hackathon Sochi «Цифровой прорыв» |
11/10/2023 - 15/10/2023**

Case: Impact of Urban Infrastructure on Health.

**Backend developer | Hackathon Perm «Цифровой прорыв» |
27/10/2023 - 29/10/2023**

Case: Creation of a Product Safety Service.