Stanisław Rogala Backend Developer

Skills

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I am looking for a remote, or stationary long-term job as a backend, AI and basic frontend developer with Python/Django, PyTorch/ Tensorflow, or possibly PHP/Symfony. Mid. Available immediately, but prioritizing fit.

Areas of Expertise: Server-Side Logic, Database Management, CRUD operation, API Development, API integration, Authentication and Authorization, Server Management, Performance Optimization, AI (data collecting and preparing, training and testing), Unit and Integration Testing, Containerization, CI Pipelines, AWS Deploy, Version Control, Documentation, Basic Frontend.

Python, C++, PHP, C# Django, Django Rest framework, Symfony PyTorch, Pandas, NumPy, MatPlotLib, Pytest, CSV, OpenCV Al training, Data collecting, Data processing, Web scrapping, PyTorch Lightning, Transformers, LangChain, LangGraph MySQL, PostgreSQL, SQLite, relational databases (ORM), debug

AWS (EB, EC2, λ), Docker, RabbitMQ, Celery, Celery beat, GitHub, Version Control Systems, DDEV, data algorithms, CI/CD, VTUNE Linux HMTL5, CSS, JavaScript, Bootstrap Developed interpersonal skills,

Attention to detail, Flexible, Innovative, Problem-solving, Collaboration skills

**Tools** Visual Studio Code, PyCharm 3D MAX, Autocad, Solidworks, Adobe Package, and others

Lang English- C1, Chinese- A1, Polish- native

Programming, Backend, Big Data, AI, Electronics service, New technologies, 3D printing, 3D graphic, Hobby Extreme sports, Geopolitics, Stock exchange

# **GitHub Projects**

Al Stock exchange analyzer (2024- )- An application that gathers online data about companies listed on the Polish stock exchange, analyzing specific variables and their correlations with stock prices. It leverages a pretrained AI model to conduct the analysis, using web scraping to collect relevant data from the internet.

Skills: PyTorch, Django, Web scrapping, RESTful APIs, GitHub, Docker, MySQL.

Reddit (2024- )- Developed a platform for users to share content and engage in discussions, with a focus on backend features like posts, comments, and rewards. Implemented RESTful APIs and optimized database structure for seamless functionality.

Skills: Python, Django, RESTful APIs, MySQL, PyTest, Nginx, Docker, AWS, JS, HTML5, CSS, GitHub, ClickUp.

Markowitz Theory Stock Portfolio Optimization (Sep 2023 - Apr 2024)

Sophisticated tool for optimizing investment portfolios, grounded in Markowitz's Modern Portfolio Theory. The tool dynamically analyzes big stock data from the Polish stock exchange to generate optimal asset allocations, balancing risk and return. Tools of this type are used by investment funds.

Skills: Django, Pandas, Polars, MatPlotLib, AWS, Data Science, BigData, Data processing, Web applications.

## Vending Machine System (Sep 2023 - Apr 2024)

Developed a vending machine system controlling lights of sport courts after coin or bill payments, programmed in C++ using Arduino. Integrated the system with manual electric switchboards.

Skills: C++, Arduino, Electronics, Embedded Systems, signal filtering, device engineering, device projecting.

### Multiplayer Pong Game (2023)

Created a real-time online multiplayer pong game through PubNub servers. Designed an intuitive, easy-to-use interface with minimal setup for

Skills: Python, PubNub, Real-time multiplayer, Game design, interface design, Signal exchange, synchronization.

#### Courses

**2022**- Python. 100 Days /100 projects. The Complete Python Bootcamp 2022- Python Django - The Practical Guide, Complete Web Dev Bootcamp

2021- CS50 Harvard course (C#)

# Work History

#### 2024- now StayInFront Digital

 Optimizing (VTUNE) c++ scripts for: elementary geometry, feature detection in images (split ASIFT), image stitching. Time reduce 40-60%.

-Implementing state-of-the-art CNN-based image segmentation and recognition models (e.g. InternImage, DeepLabV3+). Research to select optimal architectures. Collecting data and annotations, performing data cleaning, augmentation, and preprocessing to improve model generalization. Training models on GPU, tuning, evaluating performance using metrics like mIoU, precision, recall, and F1-score. Monitoring training loss and validation accuracy, applying techniques like early stopping (lightning) and learning rate scheduling. Improved segmentation accuracy from 79% to 86% mIoU.

-Creating and maintaining databases (Django) for clients and their products photos. Configuring queued tasks using RabbitMQ + Celery (data augmentation, image processing, etc.) 2022- 2024 Backend and basic frontend dev (Qbit Studio selfemployed)

-Creating shop application: Designing the database schema, creating data models (products, users, orders), handling user registration and authentication, managing sessions and permissions, implementing the shopping cart and checkout logic, payment gateways,, building and securing APIs, managing inventory, sending transactional emails, handling returns and cancellations, logging and monitoring errors, writing tests, optimizing performance and queries, ensuring security best practices, creating admin tools or APIs, documenting the backend

-Creating applications to calculate the risks, profit and asset weights of portfolios on stock exchange market, deploying the app to the cloud, preapering data, process data, Implementation of Markovitz theory as an algorithm.

# Education

**2020- 2023** Mechatronics, engineer- University of Tech. 2015- 2020 Nanotechnology, Master degree - UAM

I authorize the processing of personal data contained in my curriculum vitae based on art. 13 GDPR 679/16.