

## **Experience**

Various Clients — IT Specialist (self-employed)

Feb 2015 - present

Technical Support

Networking

Linux

Hardware Expertise

- Provided IT support services to small businesses and individuals, including hardware and software troubleshooting, network setup, and system maintenance.
- Developed a custom PC building service, offering personalized builds based on client requirements.
- Overclocked and optimized gaming PCs for clients, improving performance by up
- Repaired phones and MacBooks, replacing screens, batteries, and other components

## Flanco — Web Developer

aug 2023 - Oct 2023

Python

Web Scraping

Data Processing

Web Automation

- Developed and maintained the company's website by creating and updating product pages/components.
- Independently engineered two in-house tools using Python, Selenium and Pandas, automating product data extraction and processing from manufacturer websites.
- These tools reduced task completion time by ~65%, saving approximately 20 hours per week.
- Left the position because I couldn't balance it with my studies.

#### **Education**

Bachelor of Finance — Bucharest University of Economic Studies 🖨 Oct 2021 - Jul 2024

- Specialized in Financial Engineering
- Thesis: "The Usage of Machine Learning Methods in portfolio optimization"
- Thesis Grade: 9

**High School Diploma** — Bucharest Theoretical High School "Dimitrie Bolintineanu"

iii Oct 2021 - Jul 2024

- Natural Sciences and Mathematics Profile
- Participated in the National Olympiad of Information and Technology
- Ranked 44th out of 846 participants nationwide, placing in the top 5.2% of competitors

# **Featured Projects**

## **Bachelor's Thesis: "The Usage of Machine Learning Methods for Financial Portfolio Optimization":**

Machine Learning

Financial Engineering

**Gradient Boosting** 

Financial Time Series

Developed a financial portfolio optimization model that outperformed the S&P 500 index by 39% in cumulative returns, using CatBoost gradient boosting algorithms. Implemented multiple asset allocation strategies including equal-weight, inverse volatility, and ML probability-based weighting

Achieved ROC-AUC score of 0.586, F1 score of 0.638, and Jensen-alpha over 17% across portfolios. Utilized Python (pandas, numpy), scikit-learn, and financial analysis libraries for feature engineering, model development, and backtesting.

#### **Homelab Server**

Self-Hosted Cloud

Virtualization

Server Administration

Nginx Proxy Manager

Linux Containers

Networking

Built a homelab server using Proxmox for virtualization. Set up TrueNAS for centralized file storage, NGINX for domain routing, and WireGuard VPN for secure remote access. Implemented Pi-hole for network-wide ad blocking and

deployed self-hosted alternatives to cloud services, including Immich for photos and Navidrome for music streaming. Created a personal cloud solution that eliminated the frustration of scattered files across multiple devices and services. O Read more on my blog.

#### Frizzy - Fullstack E-commerce Platform

Spring Boot RESTful API

JWT Security

Role-based Access Control

Product Management

- Developed a Java Spring Boot e-commerce backend with user management, product catalog, and order
- processing capabilities.
- Implemented secure authentication using Spring Security with role-based access control.
  - Created RESTful APIs for product management with filtering, searching, and pagination. Built a complete order
- workflow system with status tracking and inventory management.
  - The frontend is built with HTML/CSS/JS, and provides
- both customer shopping experience and admin dashboard functionality.
- ★ see all of my projects on my portfolio: Ø zvix.ro/projects

#### **Courses**

### Python 3 Deep Dive Part 1-4 - Udemy 2023

Completed 4-course series covering Python basics, data

structures, Iterators/Generators, JSON, object-oriented programming, and more.

## Algorithms and Data Structures in Python -Udemy 2023

Learned algorithms and data structures in Python, including sorting, searching, and graph algorithms.

### **Skills**

## **Programming & Tools:**

Swift | Python | OOP | REST API | Data Structures & Algorithms | Docker | Git

### Data Analysis & Machine Learning & Finance:

Regression | Classification | Gradient Boosting | Time Series

Analysis | Portfolio Optimization | Risk Analysis | Financial Modeling

### Soft Skills:

Teamwork | Time management | Adaptability | Selfmotivation | Conflict resolution | Active listening

### Languages:

Romanian (Native), English (Business Level)