

# Hadi Fathipour

## ML and Backend developer, Data Analyst

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I'm a enthusiastic, self-motivated and a talented person with strong analytical and problem solving skills. My technical skills lies in various fields such as Machine Learning, Backend development, Data Analysis. Also I have a strong background in Robotics and autonomous systems development, such as control engineering, embedded systems programming and advanced numerical simulations.

I love to challenge myself in terms of facing real world problems and challenges, analyzing them and finding unique solutions with the help of my knowledge, creativity and problem solving skills.

I'm eager to broaden my knowledge in fields related to my interests and cutting edge technologies. Also I'm a lifelong learner and I think learning is one of the most important skills every human has born for. Also my mistakes are my best teachers and I think making mistake is the best way to engrave knowledge on your mind.

I had found my talent and interest in programming and interacting with data in college when I began from making scientific and numerical applications and embedded systems programming, from that time.

I love to work with data, processing them, pulling meaningful results to make strategic decisions, automating projects to run as stand-alone apps.

## Experience

### Freelance ML Engineer and Data Analyst

2021 - present

- done various projects in the field of natural language processing, data analysis, business analysis and computer vision, I accept these projects from various paltforms such as linkedin, upwork, freelancer.com, laborx, etc.

### Algorithmic Trader

2022 - present

- developing various trading strategies, market data Analysis with focus on cryptocurrencies for myself and customer.
- making algo trading bots as docker containers to run as stand alone apps in server
- published pycoin open source python package for Algorithmic trading and market data analysis
- Deploying ML alghoritms trying learn functionality of various timeseries analysis models such as TFT, transformers, RNNs, ARIMA, etc model in prediction of market actions.
- developing technical analysis strategies and comparing with AI based models

## Projects

### Pycoin Alghoritmich trading python package (<https://github.com/hadifi1999/pycoin>)

this package is at the beginning of it's way but till now it has below features:

- able to get market historical data from at possible oldest date untill current time from various exchanges including Binance, Bingx, Kucoin, etc.
- able to use very useful tools to do some important operations such as finding trend, finding market high lows, using probabilistic tools , etc by my own.
- able to develop strategies including indicator or non-indicator ones such as price action based, level based strategies.

features that will have soon:

## TONPAY - Telegram Crypto Wallet on the TON Blockchain (in development)

- design and implementing a crypto wallet on TON blockchain as Telegram bot
- used sqlmodel and sqlalchemy for ORM, design and deploying user and wallet models
- fully Async wallet, ability to make many TON wallets for single user, managing and transferring assets, etc.
- used sqlmodel for ORM, [python-telegram-bot](#) for telegram bot.

project repository :

<https://github.com/hadif1999/tonpay>

## metatrader5 stand-alone docker image, used for trading bot, prop-trading platforms

- built and developed a metatrader 5 stand-alone docker image being able to start metatrader 5 in a single container without any installation, used for large scale projects like proptrading platforms, Forex trading bots, etc.

project link:

[https://hub.docker.com/r/hadi1999/meta5\\_custom\\_minimal](https://hub.docker.com/r/hadi1999/meta5_custom_minimal)

## IFUND prop-trading platform

- IFUND is a platform that invests on low risk traders if they pass some pre-defined challenges
- In this project, as a devops and backend developer I had to design and implement an API to systematically create customized metatrader5 docker containers through API, also being able to manage these containers like removing them, editing them and etc was important .
- used dockerpy for connecting python with docker, FastAPI for restAPI, etc.

IFUND platform:

<https://panel.ifund.trade/login>

swagger of project:

<http://51.89.168.20:3000/docs>

## MT5Rest (in development)

- in this project I'm developing a API to download OHLCV data from almost all brokers, being able to access to user order and positions data, creating order and a lot more.
- this infrastructure enables us to develop any Forex trading bots, proptrading platform and etc without the need of metatrader 5 user-interface so able to build large scale projects through any programming language and any trading strategies like advanced AI strategies in python and etc.
- **tools & technologies:** docker, FastAPI, httpx, sqlmodel & sqlalchemy, dockerpy
- **some of features:** fully async code, able to get historical OHLCV data as pandas dataframe and more data analysis tool, etc.

- used google BERT pretrained NLP model to evaluate relatedness of some queries to body tag of some websites
- train a XGboost model on 10000 samples of 50 queries with 3 column features gathered from first 50 google search results of each query to make a search engine recommender system
- final accuracy of 5

<https://drive.google.com/file/d/1hzrcrUI3e0OzAWQ5Y0mjX4ZXUzLrU/view?usp=sharing> [usp embed facebook](#) [usp embed facebook](#)

- the problem was how can I make a OCR with data of invoice text and elements position to extract and predict class of some important data such as customer and seller email Tel name address etc
- I used a SVM model for this problem
- final accuracy of 3

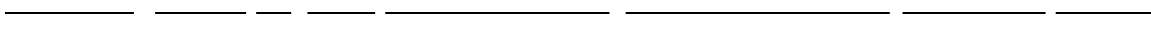
project link

- In this project using the data of pressure humidity gas sensors etc it was necessary to determine whether the place in question was on fire or not And in case of fire an alarm should sound
- This project was in the field of Internet of Things
- model used for fire prediction was a neural network model
- final accuracy of 3

[https://colab.research.google.com/drive/1V\\_VDsqKXPIvyHJSAXIidg3h0bhCY2j](https://colab.research.google.com/drive/1V_VDsqKXPIvyHJSAXIidg3h0bhCY2j) [usp sharing](#)

- this project is related to my final bachelor degree project
- it consists designing simulating and control of a reaction wheel inverted pendulum
- simulation and control design done in matlab
- implementing control algorithm PID and LQR using C in Arduino

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- designed and programmed a BLDC motor test stand GUI to measure and process and visualize motor data such as thrust RPM Torque Voltage etc using attached sensors
- written in C in Matlab



## Education

- High School 2016
- KNTU University 2017-2022
  - Bachelor of Engineering
  - GPA: 3.81
- Amir Kabir University ( Polytechnic )
  - Master's degree, Mechatronics, Robotics

reason of withdrawal : It wasn't related to my interests and needs

## Soft Skills

- Problem-solving ● ● ● ● ●
- Creativity ● ● ● ● ●
- Time Management ● ● ● ● ●
- Eye for Detail ● ● ● ● ●
- learning speed ● ● ● ● ●

## Tools and Technologies

- Python ● ● ● ● ●
- MATLAB ● ● ● ● ●
- Git ● ● ● ● ●
- numpy, Pandas, TensorFlow, Keras, SKlearn ● ● ● ● ●
- Data Analysis ● ● ● ● ●
- Docker ● ● ● ● ●
- Excel ● ● ● ● ●
- Linux ● ● ● ● ●
- Machine learning ● ● ● ● ●
- Deeplearning ● ● ● ● ●
- Timeseries forecasting ● ● ● ● ●
- MySQL ● ● ● ● ●
- ORM (sqlmodel and sqlalchemy) ● ● ● ● ●
- FastAPI ● ● ● ● ●
- HTML & CSS ● ● ● ● ●
- Celery ● ● ● ● ●

## Languages

- English ● ● ● ● ●
- Persian ● ● ● ● ●

## Hobbies

- moutain climbing
- gym
- swimming
- reading
- watching movies

