

Ian Miller

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GitHub: <https://github.com/turnMeUpSon>

Portfolio website: <https://coruscating-faun-401a0c.netlify.app/>

## EDUCATION

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- **Higher School of Economics** Moscow, Russia
- *Bachelor's Program* Sep. 2018 – Sep. 2022
- *Cybersecurity*

**Thesis:** specialist with knowledge and skills in development, research and application of the latest integrated methods and tools for information security.

**Relevant coursework:** Programming in Python, C++, Algorithmization, Computer Workshop administration of systems and networks, Linear Algebra and Geometry, Discrete Mathematics

**English Level:** Successfully passed [the Duolingo English Test](#)

## EXPERIENCE

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- **HSE University** Moscow, Russia
- *Junior Software Engineer* Sep 2021 – Sep 2022
- **Project work:** the task of project was to build an investing "Telegram" bot for tracking stocks quotes, cryptocurrencies, and world indices

- **Stepik online courses** Moscow, Russia
- *Dec 2020 – Apr 2021*
- **[Python Basics and Application certificate](#):** The fundamental principles of the Python language, how the interpreter executes code, the structure data, types of data and functions.
- **[Python programming](#):** Basic concepts and elements of the Python (operators, numeric and string variables, lists, conditions, loops).
- **[Fundamental of statistics](#):** Learned to describe the data obtained in research, the main methods and principles of statistical analysis, interpretation, and visualization of the results. I got acquainted with such methods of statistical analysis as dispersion, regression, and cluster analysis, we will learn how to compare groups with each other, calculate correlation coefficients and build regression equations.

- **HSE Computer Workshop Course** Moscow, Russia
- *Sep 2021 – Jun 2022*
- **VMware Workstation Pro:** Confidence mastery of skills in Windows OS, Linux Ubuntu OS, Mikrotik OS, network settings, work with IP addresses and DNS, forward lookup zones and reverse lookup zones, practical skills in work with Iptables and Web Application Firewall, windows and linux terminal.
- **Wireshark:** Skills in tracer different types of packets (IPv4, IPv6, FTP TCP)
- **Cisco Packet Tracer:** Skills in configuring initial switch settings, SVI and SSH

## Achievements

- [Winner of the team engineering Olympiad for schoolchildren "Olympiad of the National Technology Initiative in the competence track Talent 20.35"](#) Competence - "Programming in Python":
- [Awarded for the originality of the idea in Hackathon Moscow HSE Hack](#)

## PROJECTS ON GITHUB

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- **[FastApi](#)** application: deploy simple app with get and post methods using MongoDB, Docker Compose, Uvicorn and NGINX.
- **[DataHilo](#):** The service which analyzes and consolidates macroeconomic indicators that predict global market trends and recession. The stack of technologies is Django, PostgreSQL, Docker, Pytest, Unit Tests, JS, HTML, CSS, Ubuntu, Flake8.
- **[Predict Macroeconomic trends](#):** I built machine learning models using fbProphet in order to forecast harbingers of recession such as 10 Year Treasury Constant Maturity Minus 2 Year Treasury Constant Maturity, Bitcoin, etc.
- **[A/B testing GameDev company's new feature](#)** - The result of my work: you can roll out an update that was tested on the Test group, since an A/B test was conducted with a bootstrap, during which we received  $p\text{-value}=0.009 < 0.05 \rightarrow$  We reject the null hypothesis that the data of the two groups are statistically almost identical.
- **[Hash-Cracker on C++](#):** Preimage and collision program for MD5 and SHA2 hash functions. When launched, the program gives a choice of what the user can do, either crack the hash based on the technologies presented in the program, or create their own dictionary based on random passwords, or using a targeted attack based on special words.

- [Investing “Telegram” bot](#): My open- source project work for HSE University. This app was built using Python, Telegram API, Aiogram library and my parser for getting all the information about quotes of stocks, cryptocurrencies, world indices in real time. The parsing backend was built using the BS4 library and Requests library.
- [saycheeseandmusic](#): SayCheeseAndMusic is my open-source musical web service which allows you to listen some music and check a discography of the pool of singers.
- [Cryptomill](#): Cryptomill is my open-source platform which allows you to get all the latest information about cryptocurrencies quotes for different timeframes, price percentage and graphs. The stack for backend is Python Django 3 and parsing with CoingeckoAPI. As for frontend, I use HTML templates and bootstrap.

#### PROGRAMMING SKILLS

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- **Languages**: Python, SQL, C++, HTML CSS, JS, React
- **Technologies**: Django, FastApi, PostgreSQL, MongoDB, MySQL, Pandas, React, Docker, NGINX, Unit tests, Pytest, Telegram API, Requests, Beautiful Soup, Bootstrap, MLfinance, Linux, VMware, Wireshark, Cisco Packet Tracer.