



Ilja Barouski

MACHINE LEARNING/SOFTWARE ENGINEER

Žodzina, Belarus

+375-44-450-69-51 | iljabarouski@gmail.com | scurra.github.io | [Scurra](#) | [iljabarouski](#) | [iljabarouski](#)

Education

BSU (Belarusian State University), Faculty of Mechanics and Mathematics, Computer Mathematics and System Analysis

BACHELOR OF MATHEMATICS AND SYSTEM ANALYSIS

Minsk, Belarus

Sep. 2019 - Jun. 2023

BSU (Belarusian State University), Faculty of Mechanics and Mathematics, Computer Mathematics and System Analysis

MASTER OF MATHEMATICS AND COMPUTER SCIENCE

Minsk, Belarus

Sep. 2023 - Jun. 2025

Skills

Programming Python, Julia, Rust, C, C++, Crystal, C#, Dart, Go, LaTeX, Wolfram

Databases PostgreSQL, MongoDB, SurrealDB

Machine Learning Data Visualization, Regression, Decision Trees, Neural Networks, Ensembles, Tokenization, NLP

Languages English (B2-C1), Bielarskaja (Native), Русский

Pet Projects

Fossil

[github repo](#), [docs](#), [guide](#)

Jul. 2025 - Present

STACK: CRYSTAL

A FastAPI-inspired framework for building REST APIs in Crystal.

Key Features:

- *Macro-based routing*: Automatically generates endpoints from annotated methods, reducing boilerplate.
- *Parameter support*: Handles path, query, form, file, and body parameters with type safety.
- *Dependency injection*: Supports header, cookie, and singleton dependencies for modular and reusable code.
- *Content flexibility*: Built-in JSON serialization and custom content-type handling.
- *Lightweight wrapper*: Extends Crystal's HTTP::Server with minimal overhead.

Hamilton

[github repo](#), [docs](#), [guide](#)

Sep. 2025 - Present

STACK: CRYSTAL, TELEGRAM BOT API

A lightweight framework for building Telegram bots in Crystal.

Key Features:

- Handles commands, text messages, and rich media (stickers, videos, GIFs, etc.).
- Supports context storage for stateful conversations.
- Enables asynchronous processing and signal-based task control for performance.
- Minimal boilerplate, extensible with custom handlers.

tgsh: Telegram Shell Bot

[github repo](#)

Nov. 2025 - Present

STACK: CRYSTAL, HAMILTON.CR

A Telegram bot template for remote shell access to your server, built with Crystal and Hamilton.cr.

Key Features:

- Execute short and long-running commands with real-time output.
- Manage processes using POSIX signals.
- Upload/download files and run Python scripts directly from Telegram.
- Set custom log files for Python scripts and persistent logging.
- Async mode for better performance.

Use Case: Ideal for remote server administration, debugging, or running scripts on headless servers. Note: Avoid using on cloud VMs (violates most ToS).