# Alexander **Bogdanov**

(+7) 927-906-7999 | a@bogdanov.co | github/SphericalPotatoInVacuum | linkedin/spv-alex-bogdanov

## Education

**NRU Higher School of Economics** — *Moscow, Russia*

Bachelor in Applied Mathematics and Computer Science, Specializing in Machine Learning — *Sep 2019 – Expected Jun 2023*

- GPA: 9.07/10
- Related courses: Alrogithms and Data Structures, Computer Architecture and Operating Systems, Distributed Systems.
- Received a fully funded scholarship.

## Skills

**Programming** Python, C++, C, JavaScript

**Technologies** Linux, gRPC, Protobuf, Docker, Git, Github Actions

**Frameworks** Express, React, Flask

## Experience

**Yandex** — *Moscow, Russia*

Software Engineering Intern — *Jul 2021 – Oct 2021*

- Developed Python gRPC client library to send requests to microservice management system. Using it instead of separate executable reduced request time by 85% and number of lines of code required to make requests by 50%.
- Refactored logging system by eliminating unnecessary inheritance and overcomplication, resulting in 1000 lines codebase size reduction, improving readability and providing new possibilities for enforcing thread safety as well as new features, that helped fix race condition in multiple unit tests.
- Introduced static code style checks for project with 50’000 lines of C++ code and refactored project to comply with new requirements.

**Sibur** — *Moscow, Russia*

Software Engineering Intern — *Sep 2020 – Dec 2020*

- Proposed location and workday data gathering pipeline from employees, getting data from more than 1500 people. Prepared it for route finding algorithm using pandas. Created converter from algorithm output to pdf timetables for employees and bus drivers using Python.
- Proposed way of transferring large files (up to 10GB) using gRPC, enabling robust data upload to route finding computation unit.
- Developed aggregator website of bus monitoring links for different cities using React.js, allowing users to easily access relevant link when doing business trips.
- Implemented Java library for easier calls to API that enabled automated updates of bus routes, eliminating whole workday of manual work every week.
- Created Java library for automation of calculations that were previously carried out in excel, removing human link from production chain, increasing performance and reliability.

## Personal Projects

**Sport Events Management Website**

Backend Developer

- Implemented REST API for sports website using Python, Flask and sqlalchemy that has processed 500 requests for user, team and event registrations and many more for events management. Has been used for 6 studying seasons and continues to work to this day.
- Created telegram bot using Python for ease of approving or declining requests by administrator.
- Introduction of such website eliminated hours of paperwork and tedious management of sport events.

**Theatre Seat Booker**

Full stack

- Developed frontend for an app that allows to book tickets in theater using JS, HTML5 and electron
- Built REST API for frontend to get booked seats, book new ones and cancel booking, using Python, Flask and SQLite

**GSOM-Hack Hackathon Solution** — *Moscow, Russia*

Backend Developer — *2020*

- Solved task from hackathon as Pickup and Delivery Problem with Time Windows using genetic algorithm written in C++ showing results 3 times better than next competitor.
- While working on project proposed different implementation optimizations, decreasing solution finding time by over 90%.
- Won hackathon and was invited to internship at Sibur with my team.

## Honors

**Winner,** GSOM-Hack Hackathon — *Team placed #1 out of 12* — 2020

**Gold Medalist,** National Olympics ”Information Technologies” — *Placed #17 out of 1400* — 2018

**Winner,** National project contest ”Great Challenges” — *Member of 1/12 teams out of 40’000 participants* — 2018