

# Alexander Bogdanov

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## Education

### NRU Higher School of Economics

BACHELOR IN APPLIED MATHEMATICS AND COMPUTER SCIENCE, SPECIALIZING IN DISTRIBUTED SYSTEMS

Moscow, Russia

Sep 2019 – Jul 2023

- GPA: 8.72/10
- Related courses: Algorithms and Data Structures, Computer Architecture and Operating Systems, Distributed Systems.
- Received a full tuition scholarship.

## Skills

**Programming** Python, C++, C, Go, JavaScript, Hack

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

**Frameworks** Express, React, Flask

## Experience

### Meta

SOFTWARE ENGINEERING INTERN

London, UK

Jul 2022 – Oct 2022

- Used Hack, React.js and GraphQL to implement new internal tool for searching for customer support cases, performing quick actions on them and displaying relevant data and pages, freeing tens of man-hours per day across the org.

### Yandex

SOFTWARE ENGINEERING INTERN

Moscow, Russia

Jul 2021 – Oct 2021

- Developed Python gRPC client library to send requests to microservice management system to replace a separate executable, reducing request time by 85% and number of lines of code required to make requests by 50%.
- Reworked logging system, resulting in 1000 lines codebase size reduction, improving readability, decreasing complexity and providing new possibilities for enforcing thread safety, helping 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

SOFTWARE ENGINEERING INTERN

Moscow, Russia

Sep 2020 – Dec 2020

- Proposed location and workday data gathering pipeline, getting data from more than 1500 employees. Prepared it for route finding algorithm using pandas. Created converter from algorithm output to pdf timetables 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 for user, team and event registrations as well as events management, which is used by 300 students during CS bootcamp every year.
- 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.

### GSOM-Hack Hackathon Solution

BACKEND DEVELOPER

Moscow, Russia

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.

## Achievements

**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 a winning team out of 40'000 participants 2018