Aleksei Lapin

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Junior Software Engineer

Action-oriented and dedicated junior Software Engineer passionate about web programming and machine learning. 3rd year student of one of the best technical universities in Russia, ITMO University, studying for a bachelor's degree in System and Applied Software. Responsible, ready to learn new languages and technologies in a short time.

Education

ITMO University   Saint-Petersburg, Russia
Bachelor of System and Applied Software 09.03.04   *September 2021 - July 2025*
Relevant Coursework
Web-programming, Data Structures and Algorithms, Artificial Intelligence Systems, Modern Tools of Data Analysis, Java programming, Discrete mathematics (advanced level), Applied Statistics, Probability Theory, Linear Algebra, Calculus.

Projects

- **Function approximation program**   *April – May 2023*
  C++, SFML
  - The program finds a function that is the best approximation of a given tabular function using the least squares method.
  - Achieved interactive graph interaction (moving, zooming, adding graphs per window) by writing an **SFML**-based library.
- **Machine learning methods**   *September – November 2023*
  Python, ML, Scikit-learn
  - Implemented models: **linear regression, k-nearest neighbors method, decision trees** and **logical regression** - without using external libraries.
  - The models were used to analyze the datasets, the resulting metrics of the models were compared to the metrics obtained after training the **scikit-learn** models.
- **Point Application**   *December – February 2023*
  Java, TypeScript, React, Redux, Spring Boot, Oracle
  - Web application designed to create and manage points on the chart, as well as view points of other users of the site.
  - Developed a **RESTful API** using **Spring Boot** architecture to handle requests and responses.
  - Implemented **JWT token**-based authentication using **Spring Security**.
  - Used **Spring Data** to interact with **Oracle DBMS** by mapping Java objects to tables.
- **Route Manager**   *February – October 2022*
  Java Core, Stream API, Reflection API, PostgreSQL, SLF4J
  - Client-server application designed to store user routes.
  - Realized data exchange between client and server via **TCP** protocol.
  - Implemented **multithreading** reading requests, processing and sending responses on the server.
  - Developed my own library for automatic **DI (Dependency injection)** using **Java Reflection API**.
  - Used **PostgreSQL** database to store data.
  - Implemented event logging using the **slf4j** library.
  - Realized password hashing with the **SHA-256** algorithm.

Awards

- **First Russia Robotics Championship**   Krasnoyarsk, Russia
  Think Award Winner as part of the KTM team.   *February 2020*

Programming Skills

- **Programming Languages:** C, C++, x86_64asm, Java, Python, SQL, PLpgSQL, JavaScript, HTML/CSS
- **Frameworks:** Spring Boot, Spring, Spring Data, Spring Security
- **Libraries:** React, Pandas, NumPy, Matplotlib, SFML, Scikit-learn
- **Developer Tools:** Git, GitHub Actions, Gradle, Maven, CLion, PyCharm, IntelliJ, Webstorm, Jupyter Notebook,   GoogleCollab
- **Operating Systems:** Linux, UNIX, Windows

Languages

- Russian – Native
- English – Intermediate