# Vadim Sadokhov

**Junior C++ Developer**

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## EDUCATION

**ITMO University**                                                                2020 – Expected 2024

*2-nd year Bachelor of Applied Mathematics and Computer Science*                    St.Petersburg, RU

- **Coursework**: Algorithms and Data Structures, Discrete Math, C++ Advanced, Java

## EXPERIENCE

**Itiviti**                                                                        Aug. 2021 – Sept. 2021

*Intern Software Engineer*                                                          St.Petersburg, RU

On this position I was a part of market gateway department. As part of team I worked with exchange protocols and error handling utilities.

My achievements :

- Decreased **by 5 times** the running time of the client's data parser
- Designed **UNIT Tests** for this utility by using **GoogleTest framework**

Stack : C++17, GTest, CMake, GCC, Perl, Jira

## PROJECTS

### Archiver

- Program is a **console application** developed on **C99**
- Implemented a **Huffman coding** method which reduces the file size by about **8 times**
- Formulated a working **interface**

### Bidirectional Map

- bimap is a data structure that **discovers** a set of pairs and **efficiently looks up** a key of choice.
- The tree is **optimized** in terms of **memory size** and **total number of allocations**. Cartesian structure provides fast operations of find, insert and erase **O(log(n))**.

### Variant

- The Variant is **type-safe**: union. An instance of variant at any given time either has the value of one of its alternative types, or, on error, has no value.
- Execution meets all requirements standard and done on **C++20** (Concepts, Three-way comparison)

### Expression parser

- Designed console application implemented in **Java** with **Generics** to parse arithmetic expressions using **recursive descent method**
- Added **5 base operations** and the **ability to easily add** arithmetic operations

## SKILLS

**Languages** : C++, C, Java, Python, Bash
**Tools** : Git, Jira, Qt, MinGW, GCC, CMake