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Summary

Current second year student of Mathematical and Computer Science faculty of Saint-Petersburg University. Computer Science enthusiast, who either code and solve complex mathematical problems. Main programming languages are Kotlin and C++, but i am constantly learning new ones. Really enjoy functional paradigm.

Attended Courses and Projects.

C++ programming language semester course

Russia

SPBU

Two main homeworks: bmp-extractor and huffman archiver: https://gitlab.com/MellOr/cpp_cource_labs

Kotlin programming language year course

Russia

SPBU

- Diff graphic utility: https://github.com/MellOr/Graphic-Diff
- Basic key-value data base: https://github.com/MellOr/Basic-KVDB
- Simple plugin support music player: https://github.com/MellOr/Plugin-support
- Wikipedia parallel statistics calculation: https://github.com/MellOr/Wikipedia-Statistics
- Graphic utility for getting commits info for github repository: https://github.com/MellOr/GitHub-Repository-Statistics

Theoretical Informatics semester course

Russia

SPBU

- · Regular languages, finite automatons, Turing machine
- Formal grammars and syntax analysis algorithms
- Basics of complex theory
- Simple calculation language implemented with ANTLR library: https://github.com/MellOr/SimpleCalculator
- DFA, NFA simulator, minimizer and converter: https://github.com/MellOr/DFA_NFA_Simulator

Computer architecture semester course

Russia

SPBU

- Simple CPU-Cache-Memory simulation model in Verilog with completion time calculation: https://github.com/MellOr/Simple-CPU-cache-memory-model
- Parallel image thresholding otsu algorithm: https://github.com/MellOr/Parallel-otsu-algorithm

Mathematical disciplines

Russia

SPBU

- Calculus
- Algebra
- · Probability theory
- Discrete mathematics
- Mathematical logic

Algorithms and data structures year-and-half course

Russia

SPBL

- Graph algorithms(dfs, bfs, Dijkstra, articulation points search, ...)
- String algorithms(KMP, Z-function, suffix tree, ...)
- Data structures(linked list, segment tree, ...)
- Fast Fourier transform

Functional programming and Haskell semester cource

Russia

SPBU

- Theoretical functional computation model
- · Simple type theory
- All programming on this cource was on Haskell on "Stepik" learning platform: we used lists, monads, folds, parsers and much more.

Individual projects

Russia

SDRII

- Command project: sport management system graphic utility for sport competitions management: https://github.com/MellOr/sport-management-system-blackmagik
- Discord bot for our Mathematical and Computer Science faculty it is simple and handy helper for easy faculty server management: https://github.com/spbu-math-cs/MCS_discord_bot

Honors & Awards

DOMESTIC

| 202 | Top 20 (1st grade diploma, approximately 400 participants), SPBU Olympiad in Informatics | Russia |
|------|---|--------|
| 202 | Top 20 (1st grade diploma, approximately 400 participants), Innopolis Open Olympiad in Informatics | Russia |
| 2021 | Top 10 (1st grade diploma, approximately 400 participants), University-Academic Olympiad in | Russia |
| | programming in Ural | |
| 202 | Top 20 (2st grade diploma, approximately 400 participants), Olympiad "Lomonosov" in Informatics | Russia |
| 2021 | Top 20 (1st grade diploma, approximately 400 participants), Moscow olympiad in informatics for school | Russia |
| | students | |
| 202 | Top 70 (2st grade diploma, approximately 400 participants), SPBU Olympiad in Informatics | Russia |
| 2021 | Top 80 (2st grade diploma, approximately 400 participants), Individual olympiad in informatics and | Russia |
| | programming | |

Education _____

BACHELOR IN COMPUTER SCIENCE

SPBU(Saint-Petersburg State University)

Saint Petersburg, Russia

Sept. 2021 - Present

• Got a nominal St-Petersburg government scholarship for students on the first year of studying.