Mokrov Kirill

Personal Information

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Education

2016 – 2020 **Moscow State University**
Faculty of Computational Mathematics and Cybernetics
Department of Supercomputers and Quantum Informatics
GPA 4.75 / 5.0

Technical skills

General Data structures, Algorithms, Object-oriented programming,
Basic knowledge of the Linux/Unix operating system

Languages C/C++, Python

Libraries Numpy, OpenGL, MPI, OpenMP, PAPI, POSIX Threads

Technologies Git, Travis-CI

Strengths

Hard-working, Communication, English(Intermediate)

Time Management, Critical Thinking

Projects

o **Finite fields and BCH codes**
- Basic operations in F_2^q
- Basic operations for working with polynomials in F_2^q
- Systematic coding procedure for cyclic code defined by its generating polynomial
- Procedure of decoding the BCH code using the PGZ method and method based on the extended Euclid algorithm.

o **Realization of quantum gates and algorithms**
- Hadamard gate with noise, fidelity measurement - MPI + Openmp
- Hadamard, n-Hadamard, Phase-shift, NOT, CNOT, CPhase-shift gates - MPI + Openmp
- Quantum Fourier transform - MPI + Openmp

o **Syntax analyzer**
- Implemented by recursive descendant method
- Defining types of all subexpressions
- Detects lexical, syntactic and semantic errors

Interests and researches

Course work

Development of a prediction method for parallel application scalability on supercomputer configurations

Scientific interests

Parallel and High Performance Computing

Quantum computing

GPU computing