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EDUCATION

- **Higher School of Economics** Moscow, Russia
Bachelor's degree in Applied Mathematics and Informatics Sep. 2022 - Jun. 2026
- **Relevant CS Courses:** C++, Rust, Algorithms and Data Structures,
- **Relevant Math Courses:** Matrix Computations, Time Series, [Machine Learning](#), [Deep Learning](#), [Optimization for Machine Learning](#), [Applied Machine Learning](#),

PROJECTS

- **Neural Machine Translation System** University Project

Python PyTorch NLP

Developed an LSTM-based sequence-to-sequence model with attention mechanism for German-English translation, achieving 26 BLEU4 score on private leaderboard.

 - Implemented and optimized beam search algorithm for BLEU4 maximization
 - Conducted extensive hyperparameter tuning
 - Implemented custom Vocab class for efficient tokenization with numbers and cross-lingual tokens
 - Integrated dynamic teacher forcing and adaptive learning rate
 - Tracked training process using Weights & Biases
 - Developed custom evaluation metrics and debugging tools for translation quality analysis
- **Fibers** University project

C++ Assembly x86 gdb

Implemented a Fiber (lightweight thread of execution) multiplexer class using C++. Program allows you to create fibers and manage them using cooperative multitasking principles.

 - Developed low level function for switching to a different stack and callstack using inline assembly
 - Tracked data movements using gdb
 - Designed algorithm to manage multiple fibers using OOP principles
- **Image processor** University project

C++ CMake Bash OOP

Implemented a console application using C++. It allows you to apply various filters to images, similar to filters in popular graphic editors. Worked directly with BMP file format without using third-party image processing libraries.

 - Used various OOP patterns, designed complex but strict inheritance structure
 - Covered whole functionality with unit tests using GoogleTest
 - Passed multiple code reviews
 - Implemented several complex filters like Gaussian Blur
 - Reflected all stages of the project on GitLab
 - Implemented exception handling

SKILLS

- **Programming Languages:** C++, C, Python
- **Technologies:** Linux, git, gdb, SQL, Docker
- **Knowledge:** Algorithms, Data Structures, OOP
- **Libraries:** PyTorch, pandas, numpy, Flask
- **Languages:** English (Upper-Intermediate), Russian (Native)

HOBBIES

[Chess](#), [Poker](#), [Football](#)