

# Denis Korol

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## Objective

### Junior Backend Developer

Seeking an internship position in C++/Java development. Ready to apply and deepen knowledge in algorithms, OOP, and multithreading within real projects.

## Education

### Belarusian State University (BSU), Faculty of Applied Mathematics and Computer Science

*Major: Applied Mathematician. Programmer*

*Key Disciplines:* Industrial Programming (Java), Algorithms and Data Structures, Cross-Platform Application Development (C++/Qt), Operating Systems, Mathematical Analysis, Discrete Mathematics.

## Skills

- **Programming Languages:** C++ (standards 98, 11, 14, 17, 20) (intermediate); Java (intermediate); SQL (novice); Assembler (novice)
- **Frameworks & Libraries:** Qt (novice), STL (novice), JUnit (novice)
- **Tools:** Git, CMake, IntelliJ IDEA, Visual Studio
- **Operating Systems:** Windows, Linux, Android, iOS
- **Fundamental Knowledge:** Algorithms and Data Structures, OOP, Design Patterns, Multithreading, IPC
- **Foreign Language:** English (B1)

## Academic Projects

### C++ Projects

- Multithreaded Application with Synchronization and Deadlock Handling
  - Developed a system to manage multiple competing threads (markers) that modify a shared data array in parallel.
  - Implemented synchronization mechanisms based on critical sections and events to ensure safe data access and proper conflict resolution when operations cannot proceed.
- Algorithms and Data Structures Library
  - Implemented various algorithms (sorting, searching, dynamic programming, etc.) and data structures, conducting efficiency analysis.

### Java Projects

- Multi-Module Cafe Management Application with GUI and Multithreading
  - Full-fledged project including back-end with business logic (Builder pattern, collections, XML/JSON) and front-end using Swing.
  - Implemented background threads for data loading to ensure interface responsiveness. Covered modules with JUnit.

## Additional Information

- Studying modern development methodologies (Agile, Scrum)
- Worked as a curator/individual physics tutor at an online school
- Participate in a swimming section

- Ready for active learning and fast adoption of new technologies