Balakhnin Sergei

Software Engineer
Contacts

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Education

Bachelor's degree at Computer Science in ITMO. **GPA: 4.1 / 5**
Specialisation: mathematics and Computer Science. ITMO is 79-th world university by CS based on "QS World University Ranking".

Work Experience

JetBrains, Qodana team.
Stack: Kotlin, Java, Static Analysis
Specialization: developer in core team of static analyzer tool.
Period: 7.2021 - 03.2022

Huawei, Programming Language team.
Stack: Go, research
Specialization: develop translator from java to other language
Period: 10.2020 - 04.2021

Huawei, project - LLVM compiler.
Stack: C/C++, research
Specialization: develop profile guided optimization for clang compiler
Period: 06.2020 - 10.2020

Tinkoff internship, project - website kassir.ru.
Stack: Java, Kotlin, Spring
Specialization: Backend-developer
Period: 06.2019 - 09.2019

Key skills

- **Programming languages.**
  Kotlin, Java. To a less - Haskell, Go, C++, Python.
- Deep knowledges in algorithms and data structures.
- Theoretical knowledge in multiprocessing programming and experience in it.
- Experience in web-programming, Spring.
- SQL.
- Professional English.
- Git experience.

Educational projects, achievements

- **Bachelor's thesis**. Work on active module identification problem in bioniformatics domain. Upgrade approach discribed in: *Markov chain Monte Carlo for active module identification problem*
  My solution add support for another kind of input data (add support for metabolics networks).
  Stack: R, C++ Project link: `https://github.com/sergalb/mcmcRanking`
- **LALR-grammar parser's generator** (weak analogy to ANTLR)
  Stack: Kotlin, ANTLR
  Project link: `https://github.com/sergalb/ParserGenerator`

- **Utility for searching substring in directory** (analogy to grep, with UI)
  Stack: C++, QtCreator, Multithreading.
  In this project, I managed to achieve a performance that exceeds grep (due to pre-calculation)
  Project link: `https://github.com/sergalb/cpp-third-term/tree/master/SubstringFinder`

- **Android apps**
  Stack: Kotlin, Multithreading, REST
  Project link: `https://github.com/sergalb/android-2019`

- **Haskell applications**
  Stack: Haskell, ghc
  hw-2: Own file-system and base version system
  hw-3: Atomic tasks on lenses, concurency, interpretor of JavaScript subset
  `https://github.com/sergalb/fp`

- **Factorizing big numbers with dixon's method**
  Stack: Kotlin, mapple, linear algebra
  implementation of *Dixon* `https://github.com/sergalb/computer-algebra`

- Prize-winning in math olympiads - "Rosatom", "Phisteh", "OMMO", "Future researchers - the future of science"

- 3 years volunteering on NERC ICPC final (semi-final of whole world programming competition)