

Vladimir Kostyukov

web: vkostyukov.ru
github: github.com/vkostyukov
email: vladimir.v.kostyukov@gmail.com
phone: +7 (923) 131 97 66

I am looking for a job that deals with things I am crazy about: programming languages design and implementation; functional programming; purely functional data structures; design and analysis of algorithms; OOAD/OOP; API design. My workhorses programming languages are **Java** and **Scala**, but I am also getting on well with **C/C++** for system programming.

Experience

Intel Corporation (Novosibirsk), Performance Engineer, 2011 – ...

- Department: Software Optimization
- Responsibilities: Java platform performance analysis and enabling
- Key Results:
 - While working in Dalvik VM project (≈3 months) got deep understanding of Dalvik internals (Interpreter, Trace JIT Compiler, GC). As a result, held knowledge sharing meeting with team members about Dalvik infrastructure and fixed 12 functional/performance bugs in x86 JIT-compiler.
 - Developed (from scratch) a proof of concept PKCS#11 Java Crypto Provider (5k LOC) based on Intel IPP libraries. The prototype shows 6X speedup relative to the default Java implementation.

Intel Corporation (Novosibirsk), Intern, 2010 – 2011

- Department: Compilers and Languages
- Responsibilities: Performance tracking and analysis of Intel Compiler for Larrabee platform
- Key Results:
 - Won an Intel SSG Award for being a pioneer of Intel MIC compiler performance tracking (developed a Perl-based harness and ported initial four workloads from NVidia CUDA SDK).

Altai State Technical University (Barnaul), Technician, 2007 - 2010

- Department: IT
- Responsibilities: Maintaining network environment/OS Administration
- Key Results:
 - Established an approach (based on open source solution) of multicast workstations cloning, which is currently a cornerstone of technical maintaining of ACM ICPC NEERC semi-finals.

Projects

la4j (Linear Algebra for Java)

Open source and pure Java library that provides Linear Algebra primitives and algorithms. The la4j was included into JMatBench project – popular benchmarking packages for java matrix libraries.

- Official web-site: <http://la4j.org>
- A success story of la4j [RU]: <http://habrahabr.ru/post/132642/>
- Development Blog: <http://la4j.blogspot.com/>

Quipu

Esoteric programming language inspired by “talking knots” – recording devices historically used by Incas.

- GitHub page: <https://github.com/vkostyukov/quipu>
- Esolang page: <http://esolangs.org/wiki/Quipu>
- Quipu overview [RU]: <http://habrahabr.ru/post/165661/>

Brainfuck MediaWiki Extension

Simple MediaWiki Extension, which allows to interpret Brainfuck code on wiki pages.

- MediaWiki page: <http://www.mediawiki.org/wiki/Extension:Brainfuck>
- GitHub page: <https://github.com/vkostyukov/brainfuck-wiki-extension>

Kotlin Sublime Package

Sublime Text 2 Package for Kotlin Programming Language.

- GitHub page: <https://github.com/vkostyukov/kotlin-sublime-package>
- Plugin announcement: <http://www.sublimetext.com/forum/viewtopic.php?f=5&t=10231>

Texts

Publications

- Distributed Monitoring System (article in scientific magazine) [RU]: http://elib.altstu.ru/elib/books/Files/pa2011_3/pdf/138kostyukov.pdf
- Optimization default serialization mechanism for Java (Intel Summer School final report) [RU]: <http://software.intel.com/ru-ru/articles/Optimizaciya-dostupa-k-zagruzchikam-klassov-JVM-1/>

Blogs

- Loads of articles about Java and Design Patterns [RU]: <http://habrahabr.ru/users/spiff/topics/>
- La4j-related topics at development blog [EN]: <http://la4j.blogspot.com/>
- Personal thoughts about programming [RU]: <http://vkostyukov.tumblr.com/>

Open Source Activities

JGraphT, <http://jgrapht.org/>

- `equals()` and `hashCode()` methods for graphs: <https://github.com/jgrapht/jgrapht/pull/6>

Semantic Forms, http://www.mediawiki.org/wiki/Extension:Semantic_Forms

- checked tag for “Watch this page” checkbox: <https://gerrit.wikimedia.org/r/#/c/12214/1>

pChart4mw, <http://www.mediawiki.org/wiki/Extension:Pchart4mw>

- Threshold line parameter for charts: <http://code.google.com/p/pchart4mw/source/detail?r=885>

Education

Altai State Technical University (Barnaul), 2006-2011

- Faculty: **IT**
- Major: **Software Engineering**
- Education level: **MSc Degree**
- Diploma: *"Distributed monitoring and dispatching system of processes in heterogeneous computing environments"*
- Supervisor: Kruchkova E. N., Assoc. of Applied Mathematics department