Michael Pankov

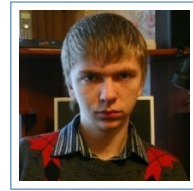## System Programmer

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Experience

Sep. 2014–now **Software Engineer**, *Kraftway PLC*, Moscow.
Developing device blocking system with hypervisor and UEFI.
- Implemented templates of hardware profiles for different users;
- Researched and implemented blocking of USB 2.0 devices.

Dec. 2012–Sep. 2014 **Software Engineer**, *Samsung R&D Institute Russia*, Moscow.
Leading a specific task force on development of standard C library.
- Implemented a dynamic loader of ELF programs (ARM Assembly, C);
- Automated unit testing of dynamic loader using CMocka testing framework and codegeneration with Python;
- Implemented a build system (GNU/Make) for several interdependent projects;
- Integrated this build system with testing system (bash scripts) and continuous integration system (Jenkins);
- Designed virtual memory and thread-local storage for POSIX-compatible OS;
- Managed junior programmers.
1 recommendation available upon request

Mar. 2011–Dec. 2012 **Software Engineer**, *Intel Russia*, Moscow.
Performed research of new state-of-the-art hardware parallel architecture
- Implemented the addresses translation module for binary compiler;
- Implemented front-end of source compiler;
- Analyzed performance of the testing programs for new architecture using software simulator and optimized their time of execution.
2 recommendations available upon request

Nov. 2010–Mar. 2011 **Programmer**, *Sistemy I Svjaz'*, Moscow.
Developed a module of military decision support system. Implemented it in C++ and Qt.

Feb. 2010–Nov. 2010 **Programmer**, *Systemprom Concern*, Moscow.
Developed a specific task module for military decision support system in C++ and Qt, including design of graphical interface.

Jul. 2007–Aug. 2007 **Junior Programmer**, *KZTA*, Kaluga.
Summer practice before entering the university. Started development of in-house accounting and warehousing software.
- Implemented a module of accounting system using Delphi and Database Express.

Education

2007–2013 **Engineer**, *Bauman Moscow State Technical University*, Moscow, *4.4 (out of 5)*.
Specialty: Computer Aided Design. Main areas of study are: Analysis, Linear and Discrete Algebra, Machinery, Computer Graphics, Software Engineering, Artificial Intelligence, Mathematical Optimization

Engineer thesis

title	*Adaptor: a statistical performance modeling framework*
advisors	Anatoly Karpenko, Grigori Fursin
description	Adaptor framework was developed to perform modeling of programs performance using machine learning.
technologies	`Python, matplotlib, CouchDB, Orange`
notes	Publication is being prepared. On-going work.
	1 recommendation available upon request

Independent coursework

AI Class	An online class on artificial intelligence by P. Norvig and S. Thrun
ML Class	An online class on machine learning by A. Ng
	Certificates available upon request

Skills

Programming languages

`C`	Expert	`Assembly`	Expert
`Python`	Expert	`C++`	Proficient
`Haskell`	Beginner	`JavaScript`	Beginner

Architecture knowledge

familiar with `ARM X86` and beyond

Toolchain expertise

compiler	gcc (front-end, intermediate representation)
loader	`ld-linux.so`

Miscellaneous

markup	`CSS HTML JSON XML`	documentation	`Doxygen` LaTeX `Markdown`
frameworks	`Delphi Orange Qt`	queries	`CouchDB SQL`

Favorite tools

`emacs gdb git zsh`

Honors and awards

1st place in City informatics contest. 2006

Hobby projects

Oct. 2012	**Researcher**, *Typogenetics*. A basic DNA translator. Bioinformatics. `Python`
Jan. 2012	**CEO**, *My Twitter*. A basic clone of Twitter implementing tweeting and following. `Ruby on Rails`
Oct. 2010– May 2011	**Developer**, *picqy*. A desktop program for taking screenshots and automatic uploading to yfrog image hosting. `Python, PyQt, Twitter OAuth`

Languages

English	**Full Professional Proficiency**
Russian	**Native**

Interests

functional programming	I believe we can learn a lot from statically typed functional languages
game development	I was the game designer on *Roachers* game for Android
dancing	I learned to dance electro by myself watching videos on YouTube
gaming	I play on PC. Like *Starcraft 2*, *World of Tanks*, *DotA 2*, and indie games
board games	*Munchkin*, *Evolution*, *Sid Meyer's Civilization*, *Ticket to Ride*
cycling	I like speedy city riding and dream of a racing road bike

Reading

Code Complete by Steve McConnell

The Pragmatic Programmer by Dave Thomas

Types and Programming Languages by Benjamin C. Pierce

Compilers: Principles, Techniques, and Tools by Jeffrey Ullman ("Dragon book")

Linkers and Loaders by John R. Levine

Effective C++ by Scott Meyers