



omitted for web

bug2bug

profitware

Sergey Sobko

Lead Software Architect

Education

Engineer's degree, 230101 Computers, Computer Systems and Networks, Moscow Institute of Electronics and Mathematics – Higher School of Economics, Moscow. 2010–2016

Languages

- English (Upper Intermediate)
- Russian (Native)

Technical Experience

Proficient In

languages: Python, JavaScript, Clojure, Matlab, Pascal/Delphi

technologies: Django, Flask, Tornado, MySQL, SQLite, Emacs, \LaTeX , Bash Scripting, Git, Subversion, PostgreSQL, MongoDB, jQuery, Bootstrap, Windows, Debian & Red Hat Linux, OSX, JSON, Ant, XSLT, Regexp, HTML, CSS, Docker, Kubernetes, Helm, Apache Camel, OpenShift

Have Experience With

languages: PHP, Java, C#, C/C++, Erlang, Groovy, Haskell, Scala

technologies: Apache Kafka, Nginx, Flash, GIMP, SQL Server, Oracle, Eclipse, .NET, Spring, Rancher, MicroK8s, OpenStack

Current Position

Lead Open Source Software Architect, IBM, Moscow. 2019–present

Open Source Software solutions implementation and support:

- Red Hat Certified Architect in Infrastructure Level II (<https://www.redhat.com/rhtapps/services/verify/?certId=200-054-419>)
- Proof-of-concepts and pilots for Banks, Telecoms and Government Companies (e.g., OpenStack PoC implementation and acceptance testing in large Telco).
- Built interaction relationships with partners and vendors for support and consultancy on Nginx, PostgreSQL, Apache Kafka and other software products.
- Architectures and Solutioning for OpenShift, Apache Kafka, PostgreSQL, security, logging and monitoring in Banks, Government, Oil and Gas Companies.

Development Team Leader / Software Architect, 2016–2019
Positive Technologies, Moscow.

Web Application Firewall (<https://af.ptsecurity.com/>) solutions management and R&D using Python (Flask, Twisted), Groovy and JavaScript.

- Designed the entire backend architecture for cloud-based (Kubernetes) PT AF.
- Managed AF user interface and network infrastructure team which gradually increased up to 10 members.
- Implemented “Automatic Teamlead” solution for automation of development team routines and published “Flower” integration library for Jira, TFS, Gitlab and GitHub into open source (<https://github.com/PositiveTechnologies/flower>) – it got over 100 stars.
- Created domain-specific language and interpreter for network configuration.
- Created device package for PT AF integration with Cisco ACI.
- Presented Cisco ACI and PT AF integration with Cisco Systems representatives at Positive Hack Days VI.
- Implemented part of WAF transparent proxy mode (bridge I2 interception).

Sr. Software Developer, Positive Technologies, Moscow. 2015–2016

Web Application Firewall (<https://af.ptsecurity.com/>) solutions R&D using Python (Flask, Twisted) and JavaScript.

- Implemented Active Directory integration for PTAF configuration UI.
- Created detailed report generation functionality (attacks, alerts, etc.).
- Took 3rd place in Digital Substation Takeover contest at Positive Hack Days V.

Software Engineer, RosBusinessConsulting, Moscow. 2013–2015

Quotes monitoring web solutions R&D using Python (Django, Tornado), JavaScript, Postgres and Oracle.

- Quote.rbc.ru (<http://quote.rbc.ru/>) development and maintenance:
 - created Top News section (<http://quote.rbc.ru/topnews/>);
 - created Services and Prices section – e-shopping solution (<http://quote.rbc.ru/price/>) from scratch;
 - created authorization, registration and Personal Cabinet parts (<http://quote.rbc.ru/user/>) from scratch and integrated them with Oracle database.
- Spot currency market (<http://cash.rbc.ru/>) bug fixing, development and maintenance, Oracle to Postgres migration.
- Created Quotes monitor for GazPromBank (<http://v2.gpbmon.rbc.ru/>).

Developer, Bank’s Soft Systems, Moscow. 2011–2013

Online Banking (<http://www.bssys.com/>) solutions R&D.

- Developed and fixed special versions of online banking solution Private Client for Nordea Bank, Uniastrium Bank, MTS Bank, TFB, etc. using Oracle, Delphi and jQuery.
- Implemented multiple HSA (handwritten signature analogue) functional in standard version of online banking solution Private Client.
- Created a build system using Ant, Jython, Java and Javascript.

Web Developer, DEKO Media, Moscow. 2010–2011

Web sites and internal ERP solutions R&D using Python and JavaScript.

- Created dispatcher workplace and warehouse maintenance solution from scratch.
- Redesigned DEKO Media web site (<http://deko-media.ru/>).

Open Source Development

Open Source Developer, *The Profitware Group*.

2005–present

Participated in the creation of free and open source software:

- For Moscow Institute of Electronics and Mathematics:
 - CircuitryLib – Python library for modelling various circuit engineering systems;
 - SpiritLevel – PoC for MicroPython device;
 - ErlangIO – PoC for connecting Erlang VM with GNU/Linux kernel;
 - mDSS – Decision Support System in Clojure;
 - Cheque – Flask OCR RESTful service.
- Productivity Desktop Environment for Fedora GNU/Linux.
- Leiningen plugins for OpenShift, Ring static extraction and version handling.
- ProfitPlatform-NG – Python and Erlang distributed RPC using RabbitMQ.
- Lisp Flavoured Erlang (LFE): finite lazy sequences and cycle/1 implementation.
- SaltStack, Ferm, Gitlab Java API, HyLang, Rouge small improvements.

Teaching and Coaching Experience

Lecturer in Computer Science, *Higher School of Economics*, Moscow.

2016–present

Web Development Course (<https://www.hse.ru/en/edu/courses/219903520> – for Master's program Computational Linguistics) which was acknowledged as "Best Course for New Knowledge and Skills" in 2018/19 and aims to teach students:

- making up web pages using Bootstrap;
- creating web applications using Python (Flask, Celery);
- creating modern frontend web applications using AngularJS;
- packaging web applications into docker containers.

Coach, *Django Girls*, Moscow.

2016–present

Coached participants of Django Girls Moscow 2016 (<http://tceh.com/djangogirls/>).

Engineer's Degree Thesis

Title: Web Application Firewall Cluster Configuration Management System for Heterogeneous Networks

Final Grade: 10 out of 10

Abstract: <https://www.hse.ru/en/edu/vkr/182863697>

Defense: <https://www.youtube.com/watch?v=-pzmGtnNtz4>

Certifications

RHCA in Infrastructure L2 (200-054-419), <i>Red Hat</i> , Moscow.	2020
RHCS in Camel Devel (200-054-419), <i>Red Hat</i> , Moscow.	2020
Red Hat Certified Engineer (200-054-419), <i>Red Hat</i> , Moscow.	2020
RHCSA (200-054-419), <i>Red Hat</i> , Moscow.	2020
Interskill - Mainframe Specialist - IBM Mainframe Environment - Fundamentals, <i>IBM</i> .	2020
Architectural Thinking, <i>IBM</i> .	2020
Beyond the Basics: Istio and IBM Cloud Kubernetes Service, <i>IBM</i> .	2020
Containers, K8s and Istio on IBM Cloud, <i>IBM</i> .	2020
IBM Recognized Speaker/ Presenter, <i>IBM</i> .	2020
IBM Recognized Teacher/ Educator, <i>IBM</i> .	2020
IBM Security Essentials for Architects, <i>IBM</i> .	2020
Getting started with Microservices with Istio and IBM Cloud Kubernetes Service, <i>IBM</i> .	2020
IBM Garage Method for Cloud Explorer, <i>IBM</i> .	2020
Docker Essentials: A Developer Introduction, <i>IBM</i> .	2020
GTS Architect Foundations, <i>IBM</i> .	2020
IBM Cloud Kubernetes Service, <i>IBM</i> .	2020
IBM Services Platform with Watson, <i>IBM</i> .	2020
LFC210: Fundamentals of Professional Open Source Management, <i>The Linux Foundation</i> .	2020
Security and Privacy by Design, <i>IBM</i> .	2020
Think Like a Hacker, <i>IBM</i> .	2020
Enterprise IT Transformation Advisor Level 4, <i>IBM</i> .	2019
Banking Industry Foundations, <i>IBM</i> .	2019
Telecommunications Industry Foundations, <i>IBM</i> .	2019
IBM Mentor, <i>IBM</i> .	2019
IBM Cloud Essentials, <i>IBM</i> .	2019
Enterprise Design Thinking Practitioner, <i>IBM</i> .	2019
Information Security, <i>Echelon</i> , Moscow.	2019
Distributed Team Management, <i>Netology Group</i> , Moscow.	2016
Molecular Biology and Genetics, <i>Bioinformatics Institute</i> , Saint Petersburg, 100%.	2014