

Michal Ráček

Java / Python Developer

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Passionate Java and Python developer with more than 10 years of experience on many projects from various business areas like Energy & Utilities, Automotive, Healthcare and Banking. Mostly in roles of senior developer or software architect responsible for all phases of project life cycle. Starting with technical design, implementation to the deployment in production. The one who wrote first and last line of the project.

Next to commercial projects I'm working on many side projects in various technologies like Swift, Javascript or React Native continuously improving my skills and understanding to different technologies and problem solving approaches.

More than words about my projects can be found here:

- Bitbucket: <https://bitbucket.org/krablak/>
- Technology blog: <http://techkrab.tumblr.com>
- Github: <https://github.com/krablak>

Technologies

- Java
 - Java 8
 - Spring Boot, Spring MVC, Spring Data and other projects from Spring family
 - Tomcat, Undertow, JBoss, JSP, Freemarker, Velocity
 - Hibernate, JPA, JAX-WS, Axis2, jBPM5
- Python
 - Python 2.x & 3.x
 - Google App Engine, Flask, Bottle, Django Templates, Jinja, Mako
- Databases
 - MySQL, MongoDB, MapDB
- Front-end
 - ES5, ES6, riot.js, jQuery, QUnit, Bootstrap, Pure.css, Skeleton
- VCS
 - Git, Mercurial, CVS

- Build & CI
 - Gradle, Maven, Ant, Grunt, Gulp
 - Teamcity, Jira etc.
- IDEs
 - Eclipse, IntelliJ IDEA, PyCharm, Xcode, Visual Studio Code
 - In general I have no special preferences in IDEs

Own Projects

- Author of messaging application or OS X <https://kemo.rocks>
 - Written in Swift 3 and communication based on WebSockets
 - Server side is pure Java 8 using Undertow server
 - Frontend done using riot.js and server side rendered mustache templates
 - Deployed on Openshift and Cloudflare
- Member of team behind mail management service <https://mailor.us>
 - Written in Java 8 on Spring Boot and MongoDB
- Author of web content clipping service swaglr <http://swaglr.com>
 - Written in Python 2.7
 - Running on Google App Engine
- Co-author of [Cru.do](http://cru.do) magazine technology
 - SPA based on jQuery with dependency free [alternative implementation](#) using Coffee script and literate programming style

Competitions / Awards

- First place in Openshift Winter of Code 2014 with: On-line atmospheric dispersion modelling laboratory demonstrates that running of complex scientific models can be conducted also from the web environment using a small home-made cluster powered by multiple OpenShift gears.
 - Source code with description is available here: https://bitbucket.org/radekhofman/dss_os-git
- In Top 100 at Koding Global Hackaton 2014 as [PyJunkies Team](#)
 - Result was interactive map of nuclear explosions history. Source code is available at <https://bitbucket.org/krablak/ntm/overview>

Selected Projects

2016-now - Software Architect - Unicorn Systems a.s.

Area: Energy & Utilities

Project: Next generation of quality assessment service for validation and presentation of network model data. This version also provides own module for performing validation of CGMES model. Whole system is sized to process 30 GB data daily and databases are increasing by 1,5 GB daily. Another true challenge are sources of data provided by different systems developed by teams across whole Europe.

Technologies: Java 8, Spring Boot, MySQL 5.6, MongoDB, MapDB, AMQP

2016-now - Software Architect - Unicorn Systems a.s.

Area: Healthcare

Project: Takeover of maintenance and extension of IOT system for remote control and localisation of hospital beds. System is based on custom low-level protocol implemented in C and Python binding.

Technologies: Python 2.7, MySQL

2016-2016 - Developer - Unicorn Systems a.s.

Area: Energy & Utilities

Project: Implementation of application representing additional abstraction layer over data transmissions application to provide advanced addressing and data publication features.

Technologies: Java 8, Spring Boot, Apache Camel, AMQP, MySQL 5.7, Apache Derby

2015-2016 - Developer - Unicorn Systems a.s.

Area: Automotive

Project: Design and implementation of application module responsible for computation of car models with best price according to required equipment. Computation is based on data from various systems and traversing model equipment tree by model specific rules.

Technologies: Java 7, Spring, Oracle

2015-2016 - Software Architect - Unicorn Systems a.s.

Area: Energy & Utilities

Project: Design and implementation of system prototype extending existing application with new validation module implemented in Matlab by scientific research team.

Technologies: Java 7, Spring Boot, Matlab (MCR), JBoss, MySQL 5.6, MongoDB

2014-2015 - Software Architect - Unicorn Systems a.s.

Area: Energy & Utilities

Project: Design and development of system processing and displaying information about energy network data quality. System design was true challenge due to large amount of data and limited resources on running and also implementation.

Technologies: Java 7, JBoss, MySQL 5.6, MongoDB

2013-2013 - Developer - The Institute of Information Theory and Automation

Area: Research

Project: Development of backend and frontend of DSS application aimed to simulation of aerial propagation of a radioactive pollution.

Technologies: Python 2.7, CherryPy, Ractive.js, Highcharts

2012-2013 - Software Architect - Unicorn Systems a.s.

Area: Energy & Utilities

Project: Design and implementation of business process management system conducting energy market implicit auctions. Most of my work here was in fighting with not so good state of jBPM 5 library implementation and make it able to operate in production performing non-trivial process flows.

Technologies: Java 7, jBPM 5.x, Oracle, Spring Framework 3.5.x, JSF 2.1, Tomcat 7

2010-2011 - Senior Developer - Unicorn Systems a.s.

Area: Energy & Utilities

Project: Design, implementation and support of decentralised communication platform for data exchange of between TSOs on european energy market. Main goals were in high security, reliability during data exchange.

Technologies: Java 6, Spring Framework 2.5.x, Axis2 1.5.x, MySQL 5.x, Tomcat 6, JBoss 5