

Davor Lozić

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Senior Software Engineer

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TECHNICAL SUMMARY Laravel, Java, Spring (Boot, Data, Security), AngularJS (2), ExtJS, Cryptography, R, Linux and Bash, Graph theory, Statistics, Machine learning and SNA analysis, UML

EDUCATION

2014 - 2016	Master of Information technologies, The Polytechnic of Zagreb
2011 - 2014	Bachelor of Engineering in Computing, The Polytechnic of Zagreb
2007 - 2011	Technical school Slavonski Brod, Mechatronics technician

EXPERIENCE

March 2017. - present	Assistant Professor at the Polytechnic of Zagreb – XML, XML schemes, XPath, XSLT, SOAP
Jan. 2016. - present	Head of Software Development, Fleksbit d.o.o., team leader, programming core services, project management
March 2012 - Dec. 2015.	Senior Software Engineer, Informatička podrška d.o.o., team leader, programming core services
Dec. 2012. - July 2014.	Student teaching assistant – C, C#, PHP, Algorithms and DS

PUBLISHED

- Benchmarking PHP modules ⁽⁹⁾
- Difference between T-SQL and the relational model ⁽¹⁾
- Extending PHP with modules ⁽²⁾
- Basic PHP implementations, opcodes and internal work ⁽³⁾
- Smart communication on the Internet over REST protocol ⁽⁴⁾
- CakePHP & ExtJS - responsive web technologies ⁽⁵⁾

TALKS

Advanced PHP and Security ⁽⁶⁾	C# under .NET ⁽⁶⁾
Trust me, you don't know JavaScript ⁽⁷⁾	OOP in C# ⁽⁶⁾
Quantum mechanics in cryptography ⁽⁸⁾	ASP.NET ⁽⁶⁾
Finding security vulnerabilities ⁽⁶⁾	Java with MySQL ⁽⁶⁾
Advanced XML and exploits ⁽⁶⁾	CakePHP & ExtJS ⁽⁶⁾
PHP internals and extensions ⁽⁷⁾	Java and JVM internals ⁽⁶⁾

VOLUNTEERING

2014 - present	Technical Reviewer at PacktPublishing <ul style="list-style-type: none">• Learning Ext JS, Fourth Edition• Mastering Linux Network Administration• Mastering Predictive Analytics with R, Second Edition
2013 - present	Twice a month, I'm giving lectures about different topics of programming, mostly about functional programming, Graph theory, JavaScript, security.
June 2011 – Sept. 2011	Junior Software Developer, Infolink d.o.o., 3 months education / volunteering before college, RoR, C# under .NET

PROJECTS – enterprise

MojSpis	legal case management system, team leader, created core services, complex reports
Kamate.biz	calculating legal and contractual interest rates, complex reports, team lead, worked on core services
Mealco	handling meal consumption and permissions inside a company, RFID cards, team lead, worked on core services, query optimizations, complex reporting
DataStage	importing SQL Server data to MongoDB, processing, sending data to CKAN data platform
CityCRM	team leader, full-featured CRM, created core services with Laravel and AngularJS
MyTimeSheet	handling and organizing jobs inside a company with a reporting system
Europlakat Map	showing locations of billboards, megaboards, etc. from Europlakat, implemented with GoogleMaps API, http://europlakat.hr/maps.php
Europlakat Creative Test	test the appearance of your poster / template on different advertising formats, implemented with JavaScript and HTML5 Canvas element http://europlakat.hr/creative-test/4/1
Shelly	lead developer, built with CakePHP 3.0 used as a starting point for any future development, created and organized many core modules and components which could be necessary for faster and better applications in future
ProjectH	team lead, software for managing real estate, publishing real estate on sites like Njuškalo created core services, optimized queries, different front-end themes on the same application, organized and implemented a full-featured CMS for back-end users
EUG2016	website for European Universities Games, http://eug2016.com
PodrskaRates	getting the currency list every day from the Croatian National Bank

PROJECTS – personal/open source

1algo1week	http://1algo1week.warriorkitty.com , 1 algorithm every week
Yesenin	Yesenin poems in different languages, created with Laravel and AngularJS, Heroku
OrientML	Master's degree project, machine learning, OrientDB, KNN, Linear regression, RubyOnRails, AngularJS, classification, neural networks, graph theory
BarPro	proprietary software created for Inova-mladi contest where we have won a gold medal
BirtijaApp	finding cheapest beer, based on your location, Android (Java) application
Neo4J MoviLens	open source project, importer for MovieLens database to Neo4J
OrientLens	open source project, importer for MovieLens database to OrientDB graph database
TVZBigData	college project, big data analysis, SNA analytics, MongoDB, Python, NLTK, NetworkX

TECHNOLOGIES AND TOPICS I CARE ABOUT

Statistics and probability theory	My favourite part of Applied mathematics. I'm using R and Python whenever I need to build a statistical model or create a classification system. I'm using MovieLens database extensively. Algorithms like KNN, k-means clustering, Chi-squared test, Logistic regression are topics I like reading about.
Algorithms and Data Structures	My favourite part of Computer Science. I am amazed by memory management, garbage collection algorithms, Trees, hashing, cryptography topics.
Graph theory	Whenever I need to solve a complex problem, I try to represent it as a Graph. I understand Graph theory much more from the aspect of CS than mathematics. Applying Graph theory to problems like graph coloring, finding optimal routes, etc. are topics I'm interested in.
AngularJS and ExtJS	My two favourite JavaScript libraries and most of my JavaScript projects are written with it. I have a deeper understanding of JavaScript and I don't like it so I started to write my projects with TypeScript.
Lower level programming	I can say that C is my favourite language. Whenever I want to experiment with some algorithm, speed, parallel programming, C is my way to go. I know basics of assembly.
Back-end programming	When I need to create an API, Laravel or RubyOnRails are my main choice. On the API side, I do as much optimizations as possible like adding a caching layer like Redis or making applications communicate with distributed streaming platforms like Kafka.

Certifications

Java SE 8 Programmer I	Oracle Certified Associate, 2017-07, data types, Java API, Streams, Exceptions, Encapsulation, Polymorphism
Statistical Learning	Stanford Lagunita, 2016-03, linear and polynomial regression, logistic regression and linear discriminant analysis; cross-validation and the bootstrap, model selection
Cryptography I	Stanford Coursera, 2016-04 Stream ciphers, block ciphers, message integrity, key exchange, public-key encryption, combinatorics
Programming in R for Data Science	Microsoft's DAT209x, 2016-05, functions, data structures, vectors, matrices, reading, writing, and manipulating data, linear models, simulations, graphics

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- (1) TEM Journal 4(3):297-300
 - (2) Polytechnic and Design 3(1):74-79
 - (3) MIPRO 2015/CTS
 - (4) MIPRO 2014/CIS
 - (5) Polytechnic and Design 1(1):45-48
 - (6) The Polytechnic of Zagreb
 - (7) Meetups
 - (8) Nothing will happen, Hacker meetups, Rijeka
 - (9) Informatologia, Vol.50