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Software Development Engineer / PhD

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CORE COMPETENCIES

- Software design
- System analysis
- Design and implementation of backend and microservices
- Relational DB's optimization and reliability
- Project planning and management

TECHNICAL SUMMARY

Programming languages

- Go
- PHP
- JavaScript/NodeJS
- Python
- C#
- Java
- C/C++
- Lua

Databases & Full-text search

- MySQL
- PostgreSQL

SUMMARY

I have more than 10 years of commercial web development, building high-quality sites and services. I was working at the international company developing a high-load cloud-based Learning Management System (iSpring Learn LMS).

Currently, I'm specializing in the next core tech stack: Golang & MySQL/PostgreSQL & "js" (nodejs, vue.js, angular) & Docker.

I have a deep knowledge of relational databases and its optimization, configuration, and its reliability. I even worked as a teacher of "Databases" course.

I've finished my post-graduate thesis in Russia on semantic source code editors aka structure editors. Also developing some side-project / startup with my friends: a SaaS system for learning UX/UI topics.

WORK EXPERIENCE

2022 - now

Software Engineer

ArangoDB

Working on various tools for ArangoDB ecosystem. Among them: Go-lang DB driver, k8s operator & charts, Cluster-to-Cluster repication system. Some projects are available at GitHub.

Technologies: Go, k8s, Docker, Linux OS.

2018 - 2021

Freelancer

Self-Employed

Working on various projects. Mainly backend services implementation, script automation, microservices design, and system programming. Also started some side project.

2019 - 2020

Senior Software Engineer

cloudradar GmbH

Working on an open-source agents for server-monitoring and networks-tunneling software in Go language. Some DevOps tasks too. The projects are available at GitHub.

Tasks: adding new features to existing server-monitoring agents. Implementing CI pipelines for cross-platform packaging. Implementing first version of rport - a simple command line tool to create tunnels over HTTP/TLS/WebSockets to any endpoint, bypassing firewalls or network restrictions.

- Redis
- MongoDB
- Sphinx

Server administration & Tools

- nginx / openresty
- Docker / Docker Compose / Docker Machine
- Ansible
- Zabbix
- Prometheus
- fabric

Other

- Git
- Swagger
- RabbitMQ
- ffmpeg
- TokBox

Frontend development

- WebRTC
- jQuery
- vue.js
- Angular
- Bootstrap

HOBBY/SIDE PROJECTS

- Breezzly.ru - a small start-up with my friends. Technical execution / CTO.

Technologies: Go, Docker, Linux OS, Windows API, GitLab CI.

2015 - 2018

Senior Software Developer

iSpring Solutions

Started mentoring and guiding company's newcomers and interns. I was working on projects as a team leader/developer.

Tasks: Design and development of services from scratch, development of necessary libraries, refactoring and automation.

Technologies: PHP, Go, Python, C#, NodeJS, WebRTC, MySQL, RabbitMQ, HTML/JS/CSS, Symfony, Redis, Sphinx, Docker, Amazon Web Services.

Accomplishments:

- Optimized internal tool for making backup versions of main product sites
- Rewritten and optimized security module for web-service using openresty-LUA scripting and Redis key-value storage
- Rewritten 'iSpring Webinars Recording' feature using TokBox 'individual streams archives' API. Created special web-service for video processing using ffmpeg with the option of easily scaling up/down
- Started and actively participated in iSpring Content Library project: backend service for 'Content Library' application
- For the first time in company implemented web-service release automation using TeamCity and Fabric
- Implemented backend .NET service for MS Equation file processing
- Moved the test code base of the big project to Codeception framework, added acceptance testing.

2015 - 2018

Lecturer at local institute & university

Institute of Programming Systems and Volga State Technical University (Russia)

Gave lectures on:
- Database programming & information analysis.
- Software development management: Agile, Scrum, etc.
- Introductory course for first-year students

2012 - 2015

Software Developer

iSpring Solutions

I've joined the team of iSpring Learn Learning Management System development. I was working on core features and MySQL optimization. Also worked on iSpring Cloud platform (presentations sharing web service) from the scratch.

Tasks: Design and development of services from scratch, development of necessary libraries, refactoring and automation.

Technologies: PHP, MySQL, RabbitMQ, HTML/JS/CSS, Symfony, Redis, Sphinx, Amazon Web Services.

Accomplishments:
- Implemented video transcoding of uploaded videos using AWS Elastic Transcoder/SNS/S3
- Implemented in-browser data recovery system for user statistics
- Implemented full-text search for web-service using Sphinx
- Implemented the first version of internal url-shortener service that can process links like http://ispri.ng/xxxxx
- Participated in iSpring Webinars development, which allows LMS users to hold conferences and calls. The system is based on WebRTC and TokBox Platform

2011 - 2012

Software developer / Student Intern

iSpring Solutions

I was developing Flash/ActionScript applications and web-sites for company products

Technologies: Flash/ActionScript3, HTML, JS, CSS, PHP.

EDUCATION

2015 - 2020

PhD, Computer Science

Mari State Technical University (Volgatech)

2010 - 2015

Master of Engineering, Computer Science

Mari State Technical University (Volgatech)

https://en.volgatech.net/

PUBLICATIONS

2020

Model and algorithms of Integrated Development Environment with structure editor for software source code

PhD Thesis, 2020

https://ugatu.su/media/uploads/MainSite/Science/dissovet/07/2020/vanyasin-nv/dissert_vanyasin-nv.pdf

2019

Architecture for Integrated Development Environment with structure editing support

Information Technologies, Mechanics and

Optics, 2019

https://cyberleninka.ru/article/n/arhitektura-integrirovannoy-sredy-razrabotki-programmnogo-obespecheniya-s-podderzhkoy-strukturnogo-redaktirovaniya

2018 — **Structure editor for semantic edition of source code**

IS&IT - 2018

http://en.e-notabene.ru/kp/article_18881.html

2017 — **Semantic code editing in intelligent IDEs**

Cybernetics and programming. — 2017 - №1

http://en.e-notabene.ru/kp/article_18881.html

2016 — **Hierarchical Semantic Database Structure of the E-Learning Systems**

Handbook of Research on Estimation and Control Techniques in E-Learning Systems

https://www.igi-global.com/chapter/hierarchical-semantic-database-structure-of-the-e-learning-systems/142450

2015 — **Institute Hierarchy Mapping to iSpring Online LMS User Role Restrictions**

Электронное обучение в непрерывном образовании 2015 II Международная научно-практическая конференция

https://elibrary.ru/item.asp?id=23152223

2015 — **HIERARCHICAL SEMANTIC NETWORK STORAGE METHOD FOR RELATIONAL DATABASES**

OSTIS-2015