

# ALES HUZIK

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Sydney, Australia

## EDUCATION

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<b>Belarusian State University of Informatics and Radioelectronics, Minsk</b> Faculty of Computer Systems and Networks M.S. in Computer Science & Software Engineering	<i>July 2013</i>
<b>Belarusian State University of Informatics and Radioelectronics, Minsk</b> Faculty of Computer Systems and Networks B.S. in Systems Engineering	<i>July 2012</i>

## HAVE EXPERIENCE WITH

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<b>Operating Systems</b>	Linux (NixOS, Archlinux, Debian, CentOS, Ubuntu), Mac OS X
<b>Programming Languages</b>	Clojure, Ruby, C, Bash, JavaScript, Perl, Common Lisp, Erlang, Maude, Factor, Lua, Terra, C++, Python and some others
<b>Libraries and Frameworks</b>	React, Reagent, core.async, clojure.spec, prismatic/schema, mount-lite, Compojure, Kioo, Enlive
<b>Markup and Typesetting</b>	LaTeX, HTML, Haml, Slim, CSS, SASS/SCSS, Less, Bootstrap
<b>Cloud</b>	AWS (EC2, S3, IAM, RDS, DynamoDB, Route 53, EKS, ECS), Docker, Kubernetes, DigitalOcean, Dokku, Heroku
<b>Server technologies</b>	NixOps, Consul, Chef, Nginx, Apache httpd, Postfix, Prosody, vsftpd, Squid, Corosync, Pacemaker, DRBD
<b>SQL Databases</b>	PostgreSQL, MySQL/MariaDB, SQLite
<b>NoSQL Databases</b>	Datomic, DynamoDB, Neo4j, OrientDB, MongoDB, Cassandra
<b>Programming paradigms</b>	Imperative, Object-oriented (class-based, prototype-based), Functional, Concatenative (stack-based), Logical (predicate logic, rewriting logic).

## WORK POSITIONS

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<b>Atlassian</b> <i>Senior Clojure Developer</i>	December 2016 - Present <i>Sydney, Australia</i>
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- Code health improvements (code reviews, eliminating tech debt, improving development workflow)
- GDPR and data eviction project
- Analyzed L1-L2 support tickets related to the project, identified that majority of them are related to a troublesome Synchrony server setup in the Data Center configuration, came up with the solution to implement automatic management of Synchrony by Confluence in DC to eliminate the need for separate Synchrony server setup, and collaborated with Confluence Server team to implement it.
- Pushed for changing synchronization data from linear to tree format for the new editor integration, so standard operational transformation logic won't break the document structure. Implemented a tree diffing algorithm to support tree format synchronization
- Proposed and added jvm memory consumption metrics, so we can see when GC happens and can understand it's implications on the dynamic behavior of the system
- Decreased application bundle size twice (from 100mb to 50mb), which made deployments noticeably faster

- Calculated cluster startup dynamodb usage and increased limits accordingly, which allowed deploying during peak hours with no downtime (previously, deploying during peak hours could lead to downtime up to half an hour).
- Designed and implemented an automated versioning project
- Participated in interviewing potential candidates
- Have been helping with onboarding of new team members
- Led synchrony architecture bootcamp
- Worked with support team to investigate customer issues
- Participated in the team on-call rotation
- Participated in a company-wide hackathon (Ship-It) and got into finals

## **Filemporium**

*Lead Clojure Developer*

July 2015 - December 2016

*Remote via Upwork*

- Setup temporary deplyoment via docker and dokku
- Revised architecture in a way that drastically simplified client-side state management and allowed live page update of all active user sessions
- Reengineered project build system using boot (previously leiningen were used). Fixed project build time (full recompilation now takes just a couple of minutes instead of an hour). Adjusted project code to work with reloaded workflow.
- Documented project structure, project-specific code conventions, technical decisions, troubleshooting, and Amazon S3 project-specific step-by-step configuration guide
- Implemented production-ready multiserver setup with zero-downtime deployment using NixOS/NixOps and Consul
- Refactored most of the project, implemented lots of functionality and fixed lots of bugs (e.g added config schema validation, cleaned up garbage logging (like `(println "!!! F00:" x)`) and implemented proper configurable logging throughout the system, implemented chunked file upload with an automatic reconnection, etc.)
- Interviewed potential candidates
- Regularly did code reviews
- Did pair programming (to assist others with complicated tasks, to share project knowledge, to get back on track when I'm stuck)
- Fired a programmer that have been writing terrible code

## **Filemporium**

*Clojure Developer*

May 2015 - July 2015

*Remote via Upwork*

- Automated design updates
- Added compile-time template checks to kioo templating library to ensure component correctness after design update
- Added support for using arbitrary npm libraries from ClojureScript code (to be able to utilize existing js React components)
- Started writing project documentation. Documented actions needed to setup a project, update design, add npm library

## **Softswiss Casino Software**

*Senior Software Engineer*

October 2014 - May 2015

*Minsk, Belarus*

- Implemented integrations with external game providers (CasinoTechnology, Fengaming)
- Implemented completely custom design for new customer (HTML/CSS)
- Worked on external wallet api implementation

**Rubyroid Labs, LLC**  
*Senior Software Engineer/Team Leader*

April 2014 - September 2014  
*Minsk, Belarus*

- Designed application architecture
- Managed project development
- Did code reviews
- Solely implemented some internal services

**Intetics Co.**  
*Senior Software Engineer*

July 2013 - April 2014  
*Minsk, Belarus*

- Made fully-automated production server setup
- Worked on refactoring legacy codebase
- Worked on security-related features (IP whitelisting, XSS testing)
- Implemented backend service for mobile apps.
- Implemented automatic management of VPN servers DNS rotation
- Did code reviews

**Belarusian State University of Informatics and Radioelectronics**

February 2013 - January 2014

*Teaching assistant at Electronic Computing Machines Department (part-time)* *Minsk, Belarus*

- Taught first-year students programming in C.
- Taught fourth-year students IP networking.
- Taught students how to use Git and GitHub.
- Together with students formalized grading criteria.
- Formalized some code quality metrics.
- Regularly reviewed students' code.
- Taught Linux for interested students in my spare time.

**PowerMeMobile, Inc.**  
*Problem solver*

January 2013 - February 2013  
*Minsk, Belarus*

- Gave an idea of automating deployment process (new tier deployments may take up to a month of SysAdmin team work).
- Implemented initial stages of deployment automation (installing base cluster software, configuring corosync/pacemaker, installing and configuring DRBD and nginx as resource agents) using Chef.
- Made entire deployment configurable from a single place (from chef workstation using node attributes).
- Got an agreement on opensourcing this efforts.

**Altoros Systems, Inc.**  
*Software Engineer in Ruby department*

October 2011 - September 2012  
*Minsk, Belarus*

- Proved that custom multisite functionality is a bad idea. Dropped the hacks and refactored application to use rails 3 engines.
- Participated in porting internal RightScale services (mostly sinatra+cassandra) to JRuby to utilize native Thrift.
- Participated in all stages of design and development on many projects.

**Itransition, Inc.**  
*Junior Developer in Ruby department*

February 2011 - October 2011  
*Minsk, Belarus*

- Solely ported large social gaming engine from Rails 2 to Rails 3.
- Initiated using SCSS and Compass, which led to stylesheets development and modification speedup.

- Configured production server from scratch and setup automated Capistrano deployment.

## **SOME FACTS TO BETTER UNDERSTAND WHAT KIND OF PERSON I AM**

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- I decided to tie my work to computers when I was 5.
- First program in BASIC at age of 11, first HTML and JavaScript at 12, first program in Pascal at 13.
- I started playing with Linux when I was 14 (it was Mandrake 10 in 2005)
- I use Dvorak keyboard layout
- I use NixOS with lots of handwritten scripts and a tiling window manager as my work environment. Before NixOS I used to use Archlinux.
- I use Emacs since 2010. Since 2011 I use it with Evil (vim emulation layer)
- I have dozens of personal opensource projects and have contributed to upstream of at least 20 other.
- I am an active ACM and ACM SIGPLAN member.
- One of my primary interests is expressivity of programming languages. I have plans to get a PhD in that field.

## **GROWTH DIRECTIONS**

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- Semantics of programming languages
- Statistics and Machine Learning
- Minimal syntax programming languages: Lisp (Clojure, Common Lisp, Scheme, Qi/Shen), FORTH, Factor, APL, Tcl, Refal, Rebol, Smalltalk
- Rewriting logic (Maude system in particular)
- Programming music (Overtone, Extempore) and visuals (Quil, Processing, Fluxus)
- Creating electronic music
- Learning to draw
- Neuroscience