

## SUMMARY

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I'm a software engineer specializing in functional programming using strong static type systems, in OCaml, Haskell and PureScript in particular. Previously I've worked as an Elixir developer for quite some time. A long time ago, I worked as a .NET developer and used C# for several years. Now I'm trying to concentrate my efforts mostly on the compiler development.

## PROFESSIONAL EXPERIENCE

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- **CubePlan** Moscow, Russia  
*Software Engineer* *Jul 2018 - March 2019*
  - **OLAP Cube Viewer:** CubePlan is a BI solution based on Cognos TM1. It is a kind of browser-based spreadsheet that allows to use special formulas that are transformed to MDX expressions. Executing these expressions involves interacting with the external sources (TM1 server) to fetch data over HTTP. Built an MVP from the ground up using PureScript and Halogen.
  - **Backend, REST API:** Developed a back-end using Haskell that provides support for converting and displaying MS excel worksheets.
- **M3** Moscow, Russia  
*Software Engineer (Part-time)* *May 2017 - Dec 2017*
  - **Instagram clone:** Built a REST API + services for the Russian Instagram clone using Elixir.
- **Exante** Malta (Remote)  
*Software Engineer* *Sep 2016 - Nov 2017*
  - **Option toolkit:** Designed and built a web application for option traders to support making decisions related to portfolio hedging and optimization.
- **Disco** Australia (Remote)  
*Software Engineer* *March 2016 - Nov 2016*
  - **Music management platform:** Worked on a web app to upload, manage and share music.
  - **Bulk uploader app:** Designed and built an app for music bulk uploading.
- **UScreen** USA (Remote)  
*Software Engineer* *Nov 2015 - March 2016*
  - **Video platform:** Built a new version of the video platform (publisher area).
- **Undev/NPTV** Moscow, Russia  
*Software Engineer* *April 2013 - May 2015*
  - **CSE video wall:** A video wall is a special multimonitor setup tiled together contiguously in order to form one large screen that is installed at the time of elections and CSE. Designed and built an app from scratch.
  - **NPTV Football:** An interactive live channel created in collaboration with Russian Premier League and launched in March 2014. Games can be watched live or on demand. An episode can be viewed from different cameras. Highlights, live data and infographics are available. Football fans can watch analytics and roundups at any time. You can find more info about the project here: <http://nptv.com/>. Worked in a team of 2 backend developers, built a Ruby backend application and several API's that served as a data source for NPTV app. Built up an API for a frontend video content markup application. Collaborated with NPTV dev team to design another REST API. Designed and implemented push notifications that worked over HTTP as well as TCP through ZeroMQ.
  - **NPTV Olympic games:** Almost the same as NPTV Football but for Olympic games.
  - **Telemarker:** Complex project aimed on analysis, monitoring and delivering news content from TV channels to end users. Implemented a bunch of new features while refactoring legacy code, fixed a few bugs that was there for years. Built a couple of Ruby packages (e.g. a package for generating Microsoft Word documents by constructing them with DSL). Contributed general code quality improvements with better testing. Created a few Chef cookbooks.

## TECHNOLOGIES

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- **OCaml:** Good knowledge of the language and ecosystem.
- **Haskell:** Strong knowledge of the language, its extensions, tools and packages. I believe that I'm able to use it effectively at work to solve problems.
- **PureScript:** Proficient. I've built a few apps using PureScript, one of which was pretty complex. I have a good knowledge of the language features, ecosystem and Halogen library (including 5.0.0-rc).
- **Elixir:** Intermediate knowledge. Built 2 projects using it. Last time used when working on `mana` `ethereum` client in 2018 for a small period of time. Also there is a `toy Ethereum-like VM` on my GitHub page.
- **Dependent types, theorem provers:** Coq (I'm working through the Software Foundations series at the moment), Idris (a very basic knowledge).
- **JavaScript:** I believe I have a strong knowledge of JS, since I've been using it for years at work.
- **TypeScript:** I've built 6 projects using TypeScript. Last time used in 2017 when I worked at Exante.
- **Other languages I know:** C (more or less), C++ (up to C++ 11, you can find some old crappy playgrounds like `gfs` and unfinished `asteroids` game on my GitHub), Clojure (used last time in 2017 when I worked on the Instagram clone I've mentioned above, that was later rewritten in Elixir), Python, Octave, Matlab, Common LISP (familiar), Emacs LISP (able to quickly craft tools like `ormolu.el`), SQL, Assembly (x86, AVR).
- **Languages that I currently exploring:** Idris, Adga, Mercury and ATS.
- **Nix and NixOS:** I run NixOS as my primary OS and use Nix in my work and for personal projects on a daily basis. You can find my NixOS config here: <https://github.com/vyorkin/nixos-config>.
- **Infrastructure, DevOps:** I've used Docker a lot. I actively used Chef and Ansible in 2014-2016. In 2017 I've used Kubernetes as well (for a month or so). Currently exploring NixOps and Terraform.
- **Emacs:** I'm an Emacs user and here is my config with Org-Babel and packages I have at the moment: <https://github.com/vyorkin/emacs.d>.
- **Git:** I have a strong knowledge of Git, but I've worked with other version control systems like SVN as well.
- **Databases:** PostgreSQL, MySQL, MS SQL Server, neo4j.
- **CI:** Circle CI, Travis CI, Jenkins and a few others.
- **Build systems:** Make.

## SOFT SKILLS

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I know how to work with people who have different types of personalities and skill levels. I believe that I'm flexible enough and open to criticism.

## LANGUAGES

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I speak Russian (native), English (fluent), and German (intermediate, A2-B1).

## EDUCATION

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- **Moscow State University of Instrument Engineering and Computer Science** Moscow, Russia  
*Completed 60 credits toward a Bachelor's Degree in Computer Science* *Sep. 2002 – Dec. 2004*