# Mark Karpov

Tel.: (+7) 960-947-8031

Email: markkarpov92@gmail.com Twitter: https://twitter.com/mrkkrp GitHub: https://github.com/mrkkrp

StackOverflow: https://stackoverflow.com/users/3687048/mark

This document is also available as HTML: https://markkarpov.com/resume.html

# Summary

Haskell software developer with 3 years of experience, including 1 year of professional experience.

### Tech work experience

• May 4th, 2016—May 20th, 2017 Tier 2 Haskell developer at Stack Builders (remote). The job involved working for several clients mostly from the US. Web-applications built with Yesod, Snap, Servant (including a micro-service based system with Servant on backend). Agile. Another part of the job was writing tutorials and blog posts to increase visibility of the company.

### **Technologies**

- Databases: PostgreSQL, MySQL.
- AWS.
- Server automation: Ansible.
- Linux server.
- Strong knowledge of Git.
- CI: Travis CI, Circle CI.
- Front-end: HTML (5), CSS (Bootstrap), JavaScript (jQuery, AJAX).
- Bash/Python/Haskell scripting.
- Other languages I know: C, C++, Python, Common Lisp, Emacs Lisp.

#### Haskell

- Concepts (not mentioning basic things like rank-N types, existentials, phantom types etc.): EDSL using combinators, GADTs, type-level programming, generics, TH, high-performance Haskell, parallel and concurrent Haskell, lens (van Laarhoven/profunctor).
- Libraries (not mentioning vital common libs like monad-control and base): lens, aeson, conduit, postgresql-simple, persistent, esqueleto, dbmigrations, parsec, megaparsec, attoparsec, yesod, snap, servant, http-client, http-conduit, wreq, req, cryptonite, warp, HUnit, hspec, QuickCheck, test-framework, tasty, hedgehog, webdriver, optparse-applicative, path, path-io, stache, vector, containers, unordered-containers, binary, cereal, store, etc.

# Open source projects

- Megaparsec—Industrial-strength monadic parser combinator library. https://github.com/mrkkrp/megaparsec
- Req—Easy-to-use, type-safe, expandable, high-level HTTP library. https://github.com/mrkkrp/req
- Zip—Efficient library for manipulating zip archives. https://github.com/mrkkrp/zip
- Text Metrics—Calculate various string metrics efficiently in Haskell. https://github.com/mrkkrp/text-metrics
- Stache—Mustache templates for Haskell. https://github.com/stackbuilders/stache
- Path IO—Operations on files and directories with well-typed paths. I'm also a contributor and co-maintainer of Path itself. https://github.com/mrkkrp/path-io

The full list can be found at https://markkarpov.com/oss.html.

#### Writing

- I've authored a number of tutorials as part of my job and on my own, see e.g. "GHC optimization and fusion", the full list is available at https://markkarpov.com/learn-haskell.html.
- Blog posts are available at https://markkarpov.com/posts.html, see e.g. "Megaparsec: more speed, more power" from the recent ones.
- I've authored two chapters for the upcoming book "Intermediate Haskell": Exceptions and Megaparsec. Unfortunately the content is not publicly available yet (only available to reviewers).

#### Education

• 2009–2014—Polzunov Altai State Technical University. Engineer degree in informational technology and measuring engineering.

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