Functora

Hi-end quality software development.
Reliable. Functional. Pure.

About

I am pseudonymous software developer Functora. I do specialize in a software development with Haskell and Nix languages since 2019. I work with passion and create the best software using the best technologies. My areas of expertise and interest are Bitcoin, Lightning Network, sound money, trading, free markets, privacy and sovereignty. My primary technical goals are type-level guarantees of software correctness and safety.

Skills

Haskell is my primary and the most favorte tool. I do have advanced level of Haskell including:

- GHC.Generics, generic-lens and SYB for efficient data manipulation.
- GHCJS compiler, GHC WASM backend and JSaddle EDSL.
- Presistent and Esqueleto typed SQL drivers.
- Yesod enterprise web framework.
- Miso frontend web framework.

I am also qualified in other useful areas:

- Nix and NixOS - Strong medium level. Nix is the best tool for deterministic builds, tests and development environments. I am using NixOS daily.
- Bitcoin and Lightning Network - Advanced level as application developer (not as protocol developer). Bitcoin is the greatest achievement of the new millennium, which brings financial freedom and sovereignty back to the people.
- PostgreSQL and SQLite - Strong medium level. I am not database expert, but I am using everything what software developer should use to manipulate data storage. Queries, transactions, joins, locks.
- Docker and Swarm - Advanced close to expert level. I am using Docker and Swarm for development, builds and production. Docker is a very handy tool for MacOS and Linux compatibility.

Code

Examples of my personal code:

- currency-converter - An app for converting currencies, generating financial documents, and sharing them via links or QR codes. It includes optional client-side encryption. Built using Miso and GHCJS, the source code is available on github. Mobile version is also available on Google Play.
- lightning-verifier - An app for offline verification of Lightning Network invoices and preimages, and sharing them via links or QR codes. It includes optional client-side encryption. Built using Miso and GHCJS, the source code is available on github.
- delivery-calculator - A simple app to estimate delivery costs, generate orders in Excel spreadsheet format, and share them with merchants. Built using Miso and GHC WASM backend, the source code is available on github.
- functora - My own collection of various general-purpose libraries, most of which work with both GHC and GHCJS.
- miso-functora - Reusable Miso widgets, composable through optics.

- bfx - Bitfinex cryptocurrency exchange client library for Haskell.
- rentier - My first Haskell project which I have used to learn Haskell. The booking system is based on the Yesod web framework. The code is very obsolete.

Examples of other code I was actively working on with other people:

- btc-lsp - Bitcoin Lightning Service Provider.
- lnd-client - Lightning Network Daemon (LND) client library for Haskell.

Blog

- Bitcoin Seed Security
  September 18, 2025
- Offline Lightning Wallet
  October 23, 2020
- Sovereign Web Introduction
  October 15, 2020

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