Owen Shepherd

About Me & Contact

- English, French
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Experience

June 2022 - present

Tiko Energy Solutions - Consultant SE

Implemented core components of our Virtual Power Plant, as well as our next generation of smart home controllers.

≫ Haskell, ☼ Nix,

May 2021 - June 2022

Symmetry Investments - Consultant SE

Language implementer. Wrote a tail call elimination optimization pass, which removed recursion limits.

▣ Dlang

May 2020 - April 2021

HubSpot - Senior Software Engineer

Implemented DSLs to describes and execute data aggregation, transformation, diffing, and syncing.

≫ Haskell, ☼ Nix, ⚙ k8s, 🐳 docker, 🗝 scylla, ⬢ redis

May 2018 - December 2019

HubSpot - Fullstack Software Engineer

Led greenfield projects used by millions of people.

⚛ React.js, Ⓢ Redux, Ⅺ Ramda, ☕ Java, 🐬 MySQL

December 2019 - April 2020

Obsidian Systems LLC - Consultant SE

Developed Haskell web frameworks with functional reactive programming, typechecked from database to frontend.

≫ Haskell, ☼ Nix, ⬚ Scala, ▲ Akka

Open Source Contributions

- Sped up tree-sitter-haskell 45x.
- Generalize compensated summation algorithms to work over the RealFloat typeclass.
- Response Bucketing Added the ability for language server requests to be executed atomically

See all my public PRs

Popular(ish) blog posts

- {n} times faster than C. This made it to the front page of Ⓨ Hacker News for a day or so (link).
- Speeding up tree-sitter-haskell 50x. This was featured on Haskell Weekly issue 380, and got quite a lot of attention on lobste.rs.

Skills

| Beginner | Expert |

- ≫ Haskell
- Ⓒ C,
- ☼ Nix,
- ® Rust

Ⅺ Reflex-FRP, ◈ Git

Education

Trinity College Dublin

Bachelor's in Computer Science.

$X \xrightarrow{f} Y$, $g \circ f$, g, Z

MGS 2024

One week intensive course on Type Theory, Category Theory, and Proof Theory. Attended purely for fun.

Projects

The Piq Programming Language

Piq is a statically-typed, type-inferred, compiled programming language, written in C99.

Ⓒ C

SimFin financial data client

Haskell client for the SimFin financial data API. Includes accurate haskell types for all free and paid endpoints.

≫ Haskell

The Phage Programming Language

A functional, homoiconic, expressive, metaprogrammable programming language.

≫ Haskell

Try Lambda

Lambda calculus step-by-step simplifier REPL.

🦬 Bison, Ⓒ C, JS JS

Select.Pink

A game where you use CSS selectors to make progress.

HTML, CSS, JS JS

Conway's Game of Life GBA

An implementation of Conway's Game of Life for Gameboy Advance, implemented in C on bare-metal.

Ⓒ C

See more projects on Github or My Website