

# Owen Shepherd

## About Me & Contact



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## Experience

June 2022 - present

### Tiko Energy Solutions - Consultant SE



Implemented services that allow us to bid on energy grid stabilization contracts. Worked on the design and implementation of 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. 10x speedup, and enabled infinite recursion.

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, Ramda, Java, MySQL

December 2019 - April 2020

### Obsidian Systems LLC - Consultant SE



Developed Haskell web frameworks, that share code and state across the stack, and have strong compile-time correctness guarantees.

Haskell, Nix, Scala, Akka

Internship - Summer of 2017

### Arista Networks - Linux Kernel Engineer



Wrote linux kernel modules to take advantage of DMA hardware in network switches.

C, Python

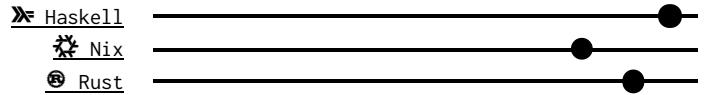
## Open Source Contributions

- [Generalize compensated summation](#) algorithms to work over the RealFloat typeclass.
- [Response Bucketing](#) Added the ability for language server requests to be executed atomically
- [Selection Formatting](#) Added the ability for a user to format all current selections

See [all my public PRs](#)

## Skills

Beginner | Expert



Reflex-FRP, React, Redux, C, Python, Git

## Education



### Trinity College Dublin

Bachelor's degree in Computer Science.

Chairperson of Netsoc, Trinity's computer science society.



### Online Courses

4 weeks each

- [Fundamentals of Quantitative Modelling](#)
- [Basic Modelling for Discrete Optimization](#)

## Projects



### 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](#)

## Competitions

- NWERC 2016 - 1st Irish team
- UKIEPC - 1st Irish team
- Arista Hack-A-Switch (internal) - won two out of five categories
- Bloomberg Codecon @TCD 2017 - 2nd
- ZeroDays security 2017 / 2018 / 2019 - 1st
- HackTrinity 2018 - 2nd



## Favourite Tech Books

- [Haskell Programming \(from first principles\)](#)
- [Learn you a Haskell for Great Good](#)
- [Type-Driven Development with Idris](#)
- [The Rust Programming Language](#)