

Allele Dev: Founder, Teacher, Programmer

- Email: allele.dev [AT] gmail.com
- Location: Austin, TX, USA
- Code:
 - [gitlab](#): newer works, mostly Haskell
 - [github](#): older code, C/C++/Python

Objective

I want to write sustainable software so that everyone benefits from reliable systems. Less frustration, more happy people.

Skills

I focus on typed functional programming, Haskell primarily. However, I have plenty of experience working in C and Python, so I can put on my imperative/OO hat as needed.

I am most productive working in an environment deploying to Linux backends.

Technology	Experience (years)	Notes
Haskell	3	various projects, lots of API work
Python	2	openstack
C++	4	userspace, storage layer
C	4	some userspace, some FFI, some kernel
Java	1	game development, course work
Javascript	<1	minor frontend tweaks
Scala	<1	web services
Linux	8	Userspace, POSIX, sys-admin
emacs	7	enough elisp to configure it
git	4	
mercurial	2	
postgresql	1	DDL, queries, use from Haskell/Python
mongoDB	1	aggregate queries, Python
redis	1	in-memory storage, caching, Python
elastic search	<1	caching, Haskell

Education

Florida State University: MS. CS. 2012

I focused on algorithms, operating system design, and high-performance computing. Understanding efficient computation was my goal while studying at the university, and as a result, was exposed to:

- GPU computing (CUDA, OpenCL, algorithms)
- Computational geometry
- Parallel network flows
- Cache-oblivious algorithms
- File system design and implementation
- Statistical methods for designing performance experiments

Work History

Queer Types, Nov. 2015 - Present, Founder, Technical Lead

- Indiegogo campaign: [Haskell Web Development Book](#)
- Minor project work: [Patreon](#)

I ran accounting, operations, and marketing, as well as technical development. It was a lot of work in a short span of time. I've learned a lot about starting and running a business in the process.

Eduphoria, Feb. 2015 - Oct. 2015, Sr. Software Developer

I worked in backend systems development using Haskell. This includes:

- API design
- Automated testing
- Application-level monitoring and logging
- Systems integration

Independent, Dec 2014 - Feb. 2015, Software Consultant

I specialized in typed-FP and web development. Available to clients on a contract or full-time basis.

Below is a list of projects I've worked on during this time:

- Internet Message Parser (RFC 5322): [source](#)
- Simple language interpreter: [source](#)

Rackspace, May 2014 - Dec 2014, Software Developer

I was tasked with the development of tools and services to aid in the automation of infrastructure. A sampling of tasks I've contributed to:

- Log analysis using Haskell/attoparsec
- IP Address querying service using Haskell/Yesod/MySQL
- DNS event processing system using Haskell/Scotty/ElasticSearch
- Network device automation service using Scala/Spray/Finagle

I wrote the following articles during this role:

- [Comparing Haskell, Scala, and Go](#)
- [Finding Issues in Scala With Wart Remover](#)

I also lead a company-wide functional programming advocacy group, encouraging colleagues to share use cases, challenges, techniques, and libraries arising from the use of FP.

Rackspace, September 2012 - May 2014, Software Developer

I aided in the development and maintenance of two products over this time.

First, I was tasked with the maintenance and extension of a c++ backup agent. This involved improving testing as well as solving existing issues.

In the latter role, I served as a core member of the Openstack Marconi (now Zaqr) project. Zaqr is a distributed message bus service written primarily in Python. I was responsible for feature development, code review, design, and testing on both client and server side. I served as the project Python 2/3 compatibility expert.

Internally, I was tasked with maintaining/extending an internal deployment of Openstack Zaqr. This involved new development effort to integrate the deployment into Rackspace's event processing systems.

I started and led an office-wide tech talk group to encourage colleagues to present on interesting tools, techniques, and technologies.

Speaking

Strangeloop 2015

- Workshop: [Build Haskell Web Services](#)

Code Mesh 2015

- Workshop: [Build Haskell Web Services](#)
- Talk (video): [Communication, Expression, and Types: Your Compiler as an Ally](#)

OSCON 2014

- Talk (slides): [Ask More of Your Languages](#)

Volunteering

Google Summer of Code 2014, Openstack Zaqr

I mentored two wonderful students!

- Victoria M. de la Cruz: worked on AMQP backend for Zaqr
- Prashanth Raghu: worked on Redis backend for Zaqr

Gnome OPW 2014, Openstack Zaqr

I mentored Nataliia Uvarova as she worked on achieving full Python 3 compatibility for the Zaqr project.

Additional Links

- [Blog](#)
- [Twitter](#)
- [LinkedIn](#)