

Ambrose Bonnaire-Sergeant Last update on September 16, 2019

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Summary

I design and implement sophisticated development tools for working programmers. Now that I have completed my Ph.D. on Typed Clojure and `clojure.spec`, I'm looking to apply my rigorous training and expertise in industry.

Software Development Experience

Lead Developer for Typed Clojure 2011 —

- designed and implemented an optional type system for Clojure, written in Clojure
- provided consulting support for industry usage (CircleCI)
- developed plugins for Vim, Emacs, Lein, and Boot
- crowdfunded over \$50,000 to support development (incl. CircleCI, Walmart Labs, and Cognitect)
- mentored 5 Google Summer of Code students

Owner UNTYPABLE LLC, 2019 —

- created platform for interactive programming tutorials, using JavaFX and Clojure (`cljfx`)
- automated static website deployment with AWS, Jekyll, and CircleCI
- created experimental Clojure keyword linter, Clojure obfuscator, and JavaFX inspector

Software Developer (Remote Intern) SPARKFUND, May 2017 — February 2018

- enhanced interactive pricing estimation tools using ClojureScript and `om.next`
- produced internal pricing reports in collaboration with sales team using Clojure and Google Sheets
- parallelized the CI builds of several projects with a migration to CircleCI 2.0 Workflows
- completed company-wide upgrade to a version of Clojure with breaking changes

Other Experience

Research Assistant / Assistant Instructor INDIANA UNIVERSITY BLOOMINGTON, 2014—2019

- published peer reviewed papers about Typed Clojure
- taught undergraduates introductory programming and introductory data structures

Education

Indiana University Bloomington BLOOMINGTON, INDIANA

Ph.D. in Computer Science 2014 — 2019

Master of Science in Computer Science 2014 — 2017

University of Western Australia WESTERN AUSTRALIA, AUSTRALIA

BSc in Computer Science with Honours 2008 — 2013

Selected Open Source Contributions

Clojure, ClojureScript, `core.match`, `cljfx`

Selected Talks

Tool-assisted spec Development CLOJURE/CONJ 2017

Practical Optional Types for Clojure ESOP 2016

Typed Clojure: From Optional to Gradual Typing STRANGELOOP 2015

Programming languages

Proficient in Clojure. Experience with Java, C, Racket, Coq, and Agda.

Community

- Google Summer of Code Administrator for Clojure (2014-2015)
- organizer of PL Wonks, Indiana University's weekly Programming Languages seminar (2017–2019)