

Andrew Blinn

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me@andrewblinn.com • github.com/disconcion
Toronto / Canada • English + French (basic)

Passionate about programming languages as user interfaces & keeps current with PL/FP/UI research & development

Work @ [TodaQ Toronto](#)

Software Development in Clojure • *May 2019 - Current*

Implementing a novel distributed digital asset management protocol & ancillary web services

Work @ [University of Toronto](#)

Software & Documentation Development • *Summer 2018*

Wrote code & exegesis for professor David Liu's programming language theory course

Designed & built an [educational language](#) with pattern matching & algebraic data types

Teaching assistance for Principles of Programming Languages • *5 semesters, 2017 – 2019*

Led tutorials, managed fora & coached with a focus on testing/TDD & code review

Built an [algebraic code stepper](#) to illustrate continuations in Scheme

School @ [University of Toronto](#)

H.B.Sc in Mathematics & Computer Science • *2014 - 2019*

Graduate-level coursework in abstract algebra, compilers, graphics & languages

Built a Racket-based x86/C com/transpiler for a λ -calculus-based language with macro system

Coursework in algorithms, concurrency, differential geometry, operating systems & topology

Research in Variational Data Structures with Marsha Chechik • *2018 - Current*

Built & profiled Haskell data structures supporting variational analysis of large software product lines

Designed & built [SpyShare](#), a Graphviz-based tool to visually inspect data sharing

Research in Structured Editing in Racket with Gary Baumgartner • *Summer 2017*

Self-initiated study of existing refactoring, live programming & direct manipulation tooling

Designed & began implementation of [Fructose](#), a Racket-based polyglot structure editor

Personal Projects

[Fructose](#) is a prototype editor focused on composable refactoring, to be featured at [RacketCon 2019](#)

[Containment Patterns](#) extend Racket pattern matching to capture contexts in deeply-nested data structures

[Depthmarch](#) is an OpenMP-parallelized C++ raymarcher for constructive solid geometry

Technical Skills

Functional Programming - Type/Test-Driven-Development in Racket, Scheme, Clojure & Haskell

Property-based testing with QuickCheck. DSL development with Racket/Redex

UI & Graphics - CSS/HTML. Design mock-up in Adobe Photoshop/Illustrator/After-Effects

Raytracing, rasterization, kinematics & geometry processing in C++ & GLSL

Profiling & Parallelism/Concurrency - C, C++ with OpenMP & MPI. CUDA. core.async

Etc - \LaTeX , Python, Java, Git, Bash, GNU/Emacs/Linux/Windows/macOS

Conferences & Workshop Attendance

ICFP - International Conference on Functional Programming • *St. Louis, 2018*

Attended fully-funded on PLMW Scholarship

OPLSS - Oregon Programming Languages Summer School • *Eugene, 2018*

A three-week program of lectures, workshops & rock-climbing with leading PL researchers

Etc - Clojure North 2019, Strange Loop 2018, RacketCon 2018 • *2018 - 2019*

Off-screen interests include bouldering, running, camping, taking pictures & bike-commuting year-round
