Carl J. Factora

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Education

Indiana University **Bloomington, IN**
Computer Science/English Literature, GPA 3.42 *Aug 2012–May 2016*
Coursework included compiler design, programming language theory, and functional programming.

The Recurse Center NYC **New York, NY**
Hacker School *February 2017–Current*
Learned web development techniques, pair programming practices, and contributed to open source projects.

Experience

Computer Science Instructor **Bloomington, IN**
Indiana University *Jan 2014-Dec 2016*
Courses included topics related to functional programming and programming language theory. Contributed course material and taught labs/lectures. Associate/undergraduate instructor for:

- CSCI-B490: "Advanced Functional Programming (FP)" - FP concepts and Haskell design techniques
- CSCI-P423/B523: "Compiler Implementation" - Incremental compiler design in Racket
- CSCI-C311/B532: "Programming Language Concepts" - Systematic approach to programming languages
- CSCI-C211: "Introduction to Computer Science"

Undergraduate Researcher **Bloomington, IN**
Daniel P. Friedman *May 2015–Jul 2015*
Research topics included the Calculus of Constructions, Martin-Löf Type Theory, theorem provers and dependent types. Influenced future course material for CSCI-C311 and CSCI-B629.

Projects

Project Lamp **New York, NY**
Interactive Online Book *Feb 2017–Current*
Author and co-creator of an online interactive book teaching functional programming in PureScript. Leveraged the utility of a static-site generator, Jekyll, to allow the seamless creation of book content.

Hermes **New York, NY**
Speed Reader App *April 2017–Current*
Implemented in Elm. Designed to work with format-rich websites and documents by allowing user-configurable behavior for specially-formatted text (i.e., headers, math formulas, code examples etc.).

Essentials of Compilation: An Incremental Approach **Bloomington, IN**
Compiler Design Textbook *Oct 2015–May 2016*
Contributed to a compiler textbook by Jeremy Siek used for course material in CSCI-P423/B523.

Introduction to Dependent Types **Bloomington, IN**
Indiana University Logic Seminar *Oct 2015*
Presented at Indiana University's Logic Seminar on dependent types and the Calculus of Constructions.

Proficiencies

Haskell, Elm, PureScript, Agda, Racket/Scheme, Python, C, Java