# Carl J. Factora

#### 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–May 2017

Learned web development techniques, pair programming practices, and contributed to open source projects.

## **Experience**

**Associate Instructor** 

Bloomington, IN

Indiana University

Aug 2016-Dec 2016

CSCI-B490: "Advanced Functional Programming (FP)" course - FP concepts and Haskell design techniques.

## **Undergraduate Instructor**

Bloomington, IN

Indiana University

Jan 2014-May 2016

- o CSCI-P423/B523: "Compiler Implementation" Incremental compiler design in Racket
- o CSCI-C311/B532: "Programming Language Concepts" Systematic approach to programming languages
- o 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