

# JONATHAN SCHUSTER

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<http://jschuster.org/>

## OBJECTIVE

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Use my combination of academic and industrial experience to bring cutting-edge computer science research into the real world.

## EDUCATION

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**Northeastern University** September 2011–Present  
Ph.D. in Computer Science (expected fall 2017) *Boston, MA*  
Research: Actor-based programming languages and related verification tools  
Advisor: Olin Shivers  
Committee: Matthias Felleisen, Amal Ahmed, Jon Rossie

**University of Notre Dame** August 2003–May 2007  
B.S. in Computer Science, Magna Cum Laude *Notre Dame, IN*  
Member of Tau Beta Pi Engineering Honor Society  
Member of Upsilon Pi Epsilon Computer Science Honor Society  
Major GPA: 3.89/4.0 • Overall GPA: 3.79/4.0

## WORK EXPERIENCE

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**Cisco Systems, Inc.** May–July 2012  
*Research Intern* *Research Triangle Park, NC*

- Developed a formal semantics for an internal domain-specific programming language then under development. This work later inspired my Ph.D. research topic.

**Clarity Consulting, Inc.** July 2007–August 2011  
*Software Consultant* *Chicago, IL*

- Developed custom software applications in the .NET Framework for clients in a wide variety of industries, including Microsoft, Facebook, McDonald's, Follett college bookstores, and the Chicago 2016 Olympic Committee.
- Wrote the official Facebook application for Windows Phone 7 in a team with one other full-time and two part-time developers. Application was created in two months with near feature parity to the two-year-old iPhone application, plus extra features not found on the iPhone.
- Took the initiative to lead the CSS styling of a public-facing client web site. Wrote the page structure for various page templates and many individual pages, and assisted other developers in creating pages to create a consistent, easily maintainable look across the site. According to project leader, my leadership was crucial to the project's success.
- Redesigned and rewrote automated sales and inventory update process for distributed bookstore management system used in over 700 stores. Decreased XML data size by over 50% and significantly reduced number of database updates to improve process performance.

## TEACHING EXPERIENCE

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### Northeastern University

September 2011–Present (various semesters)

*Teaching Assistant*

*Boston, MA*

- Fundamentals of Computer Science I: Fall 2011, Fall 2016
- Fundamentals of Computer Science II (Head TA): Spring 2012
- Compilers: Spring 2012

## PUBLICATIONS

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### Specifying Finite-State Actors

Jonathan Schuster, Stephen Chang, and Matthias Felleisen

Technical Report NU-CCIS-TR-2015-001

Northeastern University, College of Computer and Information Science, 2015

Presented at the *International Symposium on Web Services, Formal Methods and Behavioural Types (WS-FM/BEAT)* 2015

## TALKS

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### Programmatic and Direct Manipulation, Together at Last

Papers We Love Meetup, Boston/Cambridge Chapter, September 2016

### Specifying Finite-State Actors

International Symposium on Web Services, Formal Methods and Behavioural Types (WS-FM/BEAT), September 2015

### Protocol Engineering: An Overview

Programming Languages Seminar, Northeastern University, November 2013

### Smalltalk

PL Jr. Seminar, Northeastern University, July 2013

### Liberating Routers: OpenFlow and Software-Defined Networking

Ph.D. Student Seminar, Northeastern University, August 2012

### Taxonomy of Types

PL Jr. Seminar, Northeastern University, November 2011

## SERVICE AND HONORS

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- Northeastern University Dissertation Completion Fellowship recipient
- Led a group at Northeastern to create a college-wide public repository for technical reports.
- Organized a day of activities and information sessions for prospective Ph.D. students.
- Ph.D. Student Seminar organizer (2011–2012 academic year)
- Programming Research Lab webmaster (August 2013–September 2016)
- Winner of Clarity Consulting Top Coder algorithm challenge
- Eagle Scout

## PERSONAL

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Enjoy reading (especially science fiction), cooking, playing board games, and exploring Boston.