

J. Ian Johnson

OBJECTIVE

A position in the betterment of programming language technology (implementation, analysis, dev tools) in the Boston area

EDUCATION

- 2011–
projected
September
2014 **Doctorate of Philosophy**, *Northeastern University*, Boston, MA.
Computer Science
- 2009–2011 **Master of Science**, *Northeastern University*, Boston, MA.
Computer Science
- 2005–2009 **Bachelor of Science**, *University of Texas at Austin*, Austin, TX, GPA 4.0.
Computer Science
- 2005–2009 **Bachelor of Science**, *University of Texas at Austin*, Austin, TX, GPA 3.8.
Pure Mathematics

PROFESSIONAL EXPERIENCE

- June – **SDE Intern**, *BMT Scientific Marine Services, Inc.*, Houston, TX.
August 2009
 - Created statistical visualization/analysis software from scratch
 - Initial research on integrating a 6DoF accelerometer with GPS in a Kalman filter
 - Control for a 1-axis robot to simulate random wave motion with spectral analysis
 - User mode drivers for various devices.
- June – **SDE Intern**, *Microsoft Corporation*, Redmond, WA.
August 2008 Sharepoint development
 - Created front-end administrative applications in ASP.NET
 - Created back-end administrative applications in Powershell
- May – **SDET Intern**, *NVIDIA Corporation*, Santa Clara, CA.
August 2007 Developed tests for the Windows OpenGL driver.

A SELECTION OF COMPUTER SKILLS

- Languages (>10KLoC): in C/C++, Java, C#, Racket (PLT Scheme), ACL2, Coq, PHP, HTML (>1KLoC) JavaScript, SQL, Haskell, Python, CSS
- Editors: Emacs, Visual Studio (up to 2009), Eclipse
- Operating Systems: Linux (Ubuntu since Dapper), Windows (95 - 7)

327 Centre St. Unit 209 – Jamaica Plain, MA 02130
☎ (832) 928-6109 • ✉ ianjohnson@lambda-calcul.us
🌐 <http://ccs.neu.edu/~ianj>

PUBLICATIONS

- “Pushdown flow analysis with abstract garbage collection,” JFP Best of ICFP 2012
- “Optimizing Abstract Abstract Machines,” ICFP 2013

TALKS

- “Optimizing Abstract Abstract Machines,” ICFP 2013
- “Concrete Semantics for Pushdown Analysis: The Essence of Summarization,” HOPA 2013
- “Designing Precise, Pushdown, Higher-Order Flow Analyses,” IBM PL Day 2012

HONORS

Dean’s fellowship, Northeastern University

INTERESTS

Parenting, programming language semantics, hygienic macros and staged compilation, optimizing high-level languages, interactive and automated theorem proving (rewriting logic, SMT solving, type theory), history of mathematics, biographies of scientists, gaming (console/PC/tabletop), walking, cooking, homebrewing, speaking Japanese, playing classical piano, enjoying heavy metal