

# TIM CHEVALIER

## Objective

A full-time position at the intersection of software development and computer science research. Particularly interested in applying advanced, type-safe programming languages to real-world applications. Fluent Haskell programmer (since 2000); also proficient with OCaml, Standard ML, Scheme, Lisp, C, C++, Java, Tcl, shell scripting.

## Experience

**January 2012-present: Mozilla Corporation, San Francisco, Ca.**

Research Engineer (temporary): Working on implementing the object system for Rust, an experimental systems programming language.

**March 2011-September 2011: Mozilla Corporation, Mountain View, Ca.**

Research intern, Rust project: Implemented the tpestate system for Rust.

**April 2007-June 2007: Planning Systems, Inc., Monterey, Ca.**

Programmer: Worked on security software in Haskell, on-site at Fleet Numerical Meteorology and Oceanography Center.

**October 2006-December 2006: Microsoft Research, Cambridge, U.K.**

Research intern, Programming Principles and Tools group: Re-engineered and extended GHC's demand analyzer and worked on low-level profiling in GHC.

**June 2006-October 2006: GrammaTech, Inc., Ithaca, N.Y.**

Software Engineer (intern): Researched and implemented techniques for de-compilation and other reverse engineering methods.

**January 2005-August 2005: Laszlo Systems, San Mateo, Ca.**

Software Engineer: In OpenLaszlo and Java, worked on the front-end and back-end of the LaszloMail rich Internet email application. Isolated and fixed bugs in the OpenLaszlo compiler.

**November 2004-January 2005: Open Enterprises, Inc., San Francisco, Ca.**

Desktop Support Lead: Provided technical support to 100 employees mainly using Windows 2000; assisted in maintaining Linux-based mail, Web, and file servers.

**January 2004-November 2004: Averant, Inc., Alameda, Ca.**

Member of Technical Staff: Redesigned the Tcl-based command-line interface for an EDA tool for static verification of Verilog and VHDL designs, and ported it from Java to C.

## Education and Research

**2007-2011: Portland State University, Portland, Ore.**

PhD student in Computer Science.

Researched the design and implementation of strongly typed programming languages for systems programming, focusing on high-assurance runtime systems and compilation. Currently on leave of absence.

**2001-2003: University of California, Berkeley**

M.S. in Computer Science.

Master's thesis: "Implementing Type-Based Deforestation". Supported by a National Science Foundation Graduate Research Fellowship.

**1997-2001: Wellesley College, Wellesley, Mass.**

B.A. *cum laude*, Computer Science major and Mathematics minor with honors in Computer Science. Sigma Xi. Coursework at MIT.

Senior thesis: "Exploring Type-Inference-Based Deforestation". Received the Jerome A. Schiff Fellowship for outstanding senior thesis work at Welles-

ley.

## **Skills and Activities**

Standard open-source development tools. Comfortable in GNU/Linux, Unix, Windows, Mac OS X environments. Strong writing and editing skills.

Member, Computer Science Graduate Student Council at Portland State, 2008-2011 (Coordinator, 2009-2010). Cycling enthusiast.

## **Contact Information**

Email: [chevalier@alum.wellesley.edu](mailto:chevalier@alum.wellesley.edu)

URLs: <http://catamorphism.org/> • <http://linkedin.com/in/catamorphism/>

References and further contact information available on request.