JARED ROESCH

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Education	**M.S. Computer Science (Systems Emphasis, 1st year)** University of California Santa Barbara	Spring 2013 - Present
	B.S. Creative Studies (Computer Science Emphasis, 4th year) University of California Santa Barbara	Fall 2010 - Present
Experience	**Software Engineering Intern**, RingRevenue Inc. Delivered a high value API service for one of RingRevenue's key customers, its design will serve as a model for future services. We added functionality and increased performance of the API by over 40x, using a highly concurrent, distributed, in-memory design.	June 2013 - September 2013
	Research Assistant, PL Lab UCSB Working under Professor Ben Hardekopf. My work in the lab has spanned abstract interpretation, pointer analysis, JavaScript optimization, research languages for teaching static analysis, and more.	July 2012 - Present
	Software Engineer, Zentopy Inc. I architected the API layer, designed and implemented the frontend UI, ported the C/C++ client from Windows to OS X, and built a filesystem layer between our web services and storage mechanisms.	May 2011 - January 2013
	Teaching Assistant, College of Creative Studies I have lectured on Haskell, Scala, and Ruby in the introductory computer science class. Helped teach the Cloud Computing class, as well as co-taught a class on Computer Theorem Proving focused on functional programming, type systems, and logic.	Spring 2012 - Present

Skills and Interests

Topics:
- Compilation, Program Analysis, Programming Language Theory, Type Systems, Lambda Calculus, Web services, data storage, AWS, front-end engineering and design, NoSQL.

Languages (by experience):
- Haskell, Scala, Ruby, Coffeescript, Javascript, Python, C, C++, Java, C#, Clojure, Coq, Objective-C, Idris, Rust,.

Frameworks and Tools:
- Cabal, Ruby on Rails, Play!, Unfiltered, Bash, (C — R — M)ake, Leiningen, SBT, MongoDB, PostgreSQL, ZShell.

Selected Projects	**Lwnn** I helped design a type system for a small teaching language that will be used in graduate program analysis. I implemented both a type checker and parser in Scala to complement the design.	PL Lab 2013
	MCJS (Javascript Virtual Machine Implementation) I worked in collaboration with Qualcomm Research on new techniques for engineering JavaScript interpreters and virtual machines.	PL Lab 2012-2013

Analyze-JS PL Lab 2012

A framework for doing Abstract Interpretation on Javascript. I have helped maintain parts of the framework, mostly improving performance.