

eric fritz

software developer

contact

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<http://eric-fritz.com>

interests & languages

Construction of (Optimizing) Compilers · Algorithms & Data Structures · Concurrent & Distributed Systems
Scala · Java · Python · Go · Rust · Javascript · Swift · C# · \LaTeX

education

- 2014 - Now **PhD Computer Science** University of Wisconsin - Milwaukee
Research *'Never-Stale Intermediate Representations amidst Optimizing Transformations'*
Developing a set of algorithms which can reconstruct (locally) particular invariants of an optimizing compiler's intermediate representation after an optimization pass mutates the program's control flow graph. (Currently In-Progress)
Awards CEAS Dean's Scholarship, Spring 2014
- 2011 - 2013 **MS Computer Science** University of Wisconsin - Milwaukee
Research *'Optimizing the RedPrairie Distance Cache'*
Designed and implemented a cache for RedPrairie (now JDA)'s Vehicular Routing Problem solver given hard runtime and space constraints. The caching strategy showed a marked improvement in the solver's throughput.
Awards Chancellor's Graduate Student Awards (CGSA), Spring 2013
CEAS Dean's Scholarship, Fall 2013
- 2007 - 2011 **BFA Film, Computer Science Minor** University of Wisconsin - Milwaukee
Awards Cum Laude, Dean's Honor List, Senior Honors

refereed publications

- 2015 **Type Inference of Asynchronous Arrows in JavaScript** REBLS 2015 Co-Located with SPLASH
Paper and presentation slides available at <http://arrows.eric-fritz.com>.

career history

- 2015 - Now **Software Developer** ShoreTel (Corvisa LLC) - Milwaukee, WI
Designed and implemented a multi-datacenter resource tracking/limiting service to increase Corvisa's PaaS reliability and uptime. Enabled transparent horizontal scaling of (dumb) SIP switches, increasing the maximum active call capacity for large clients.
Go, Python, Lua, Postgresql, Redis, Zookeeper, Riemann
- 2008 - 2009 **Software Developer** ESDN, Inc. - Janesville, WI
2011 Developed and maintained a platform aiming to streamline e-commerce operations for hundreds of jewelry retailers and brands. Designed and implemented an jewelry collection management product, and a retail locations management application; both highly-demanded by clients.
C#, ASP.NET MVC, Java, MySQL
- 2011 **Software Developer (Freelance / Contract Position)** EMM Holdings, LLC. - Milwaukee, WI
Developed and maintained an application which managed employee scheduling for an accelerated startup. Improved testing and maintenance qualities of flagship application by introducing dedicated business logic and view application layers.
PHP, MySQL, HTML5, CSS3

teaching history

2011 - 2016

Teaching Assistant

University of Wisconsin - Milwaukee

Designed the syllabus, course structure, and focus for CS658, CS481, and CS481. Prepared assignment, quiz, exam, lecture, and lab activity for the following courses fresh each semester. Evaluated hundreds of students over eleven semesters.

CS658	- Mobile Application Development Under iOS	✓	✓	
CS482	- Rich Internet Applications	✓	✓	
CS481	- Server-side Internet Programming	✓	✓	
CS655	- Compiler Implementation Laboratory		✓	✓
CS251	- Intermediate Computer Programming		✓	✓
CS744	- Text Retrieval and Its Applications in Biomedicine			✓
CS395	- Social, Professional, Ethical Issues			✓
CS361	- Introduction to Software Engineering			✓
CS351	- Data Structures and Algorithms			✓
CS315	- Assembly Language Programming			✓
CS201	- Introduction to Computer Programming			✓
CS150	- Survey of Computer Science			✓
		Designed	Instructed	Assisted