

eric fritz

(608) 774-1120 · eric@eric-fritz.com · eric-fritz.com

software engineer

technologies

Go · Python · Rust · Scala · Java · SQL
Redis (Scripting and Modules) · RabbitMQ · Cassandra · ZooKeeper · Consul
Docker · Mesos · Marathon · S3 · Git · Bamboo

work history

- 2015 - Now **ShoreTel, Formerly Corvisa LLC.** Milwaukee, WI
Developed *Summit* and the surrounding infrastructure for ShoreTel's communications platform as a service. The platform allows users to build voice and SMS applications with Lua code that runs in containerized sandboxes. My primary contributions include solutions for container scheduling, rate and process limiting applied per-client, cross-datacenter storage, voice recognition, and real-time audio mixing and streaming.
- 2008 - 2011 **ESDN, Inc.** Janesville, WI
Developed an e-commerce and supply chain web application which streamline interactions between jewelry consumers, retailers, and suppliers. My primary contributions include a consumer-facing jewelry collection showcase and a retail (brick-and-mortar) location management system. Primary technologies include ASP.NET MVC using C# and MSSQL.

education

- 2014 - 2018 **PhD Computer Science** Milwaukee, WI
University of Wisconsin - Milwaukee
'Waddle: Always-Canonical Intermediate Representation': an optimizing compiler and a supporting set of algorithms whose internal representation never *goes stale*. Local updates to internal structures reduces compilation time while yielding the same output.
- 2011 - 2013 **MS Computer Science** Milwaukee, WI
University of Wisconsin - Milwaukee
'Optimizing the RedPrairie Distance Cache': implemented and evaluated a number of caching solutions for RedPrairie's vehicular route solver using production query data given hard runtime and space constraints. Applying the chosen caching strategy provided a marked improvement in the solver's throughput.

publications

- 2017 Charon: The Design of a Limiting Microservice Whitepaper, ShoreTel
- 2016 Typing and Semantics of Asynchronous Arrows in JavaScript The Science of Computer Programming
- 2016 Arrows in Commercial Web Applications HotWeb
- 2015 Type Inference of Asynchronous Arrows in JavaScript Reactive and Event-based Languages & Systems

teaching history

- 2011 - 2016 **University of Wisconsin - Milwaukee** Milwaukee, WI
Designer and primary instructor of a mobile application programming course using iOS, a compiler implementation laborator, intermediate programming using Java (second course of a three-part series), and a pair of courses focusing on server-side and client-side application development. Ran laboratories and graded for seven additional courses including text retrieval, data structures and algorithms, and assembly language programming (using MIPS).