eric fritz

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

software engineer

core competencies

Go · TypeScript · Python · Git · Docker · Postgres · Redis · Kafka · Kinesis · RabbitMQ
Kubernetes · Lambda · DynamoDB

work history

2019 - Now **Sourcegraph** Milwaukee, WI (Remote)
Software Engineer on @code-intel
I am currently exploring language servers and related offline-indexing strategies to supply fast and precise code intelligence, specifically cross-project jump-to-definition and find-reference queries, for large enterprise installations (around the scale of 100K repositories, 10M lines of code, and 1K commits per repository per day).

2015 - 2019 **Mitel** Milwaukee, WI
Senior Software Engineer, Labs Team
Designed and implemented: *Nighthawk*, an IFTTT-like engine and the surrounding ecosystem to support integration of internal and external services; *Kestrel*, Mitel's IoT infrastructure and IoT Collaboration strategy; *Summit*, a CPaaS system that allows users to build voice and SMS applications with Lua code that runs in a containerized sandbox.

education

2014 - 2018 **Ph.D. Engineering, 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 **M.S. 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

2018	Waddle - Always-Canonical Intermediate Representation	Dissertation
2018	Maintaining Canonical Form After Edge Deletion	ICOOOLPS
2017	Charon: The Design of a Limiting Microservice	Whitepaper, Mitel
2017	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	REBLS