eric fritz

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software engineer

core competencies

Languages	Go · Python · JavaScript · TypeScript
Local	Git · Docker · Localstack
Databases	Postgres · DynamoDB · Cassandra · Redis (writing modules)
Technologies	RabbitMQ · Kinesis · Kafka · Riemann · Prometheus
Orchestration	Lambda · Kubernetes · Mesos

work history

2015 - Now — **Mitel** — Milwaukee, WI
Senior Software Engineer, Labs Team
We are currently building an IFTTT-like engine and the surrounding ecosystem to support integration of internal and external services. Previously, my team designed Mitel's IoT infrastructure and IoT Collaboration strategy and developed *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

Year	Title	Venue
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